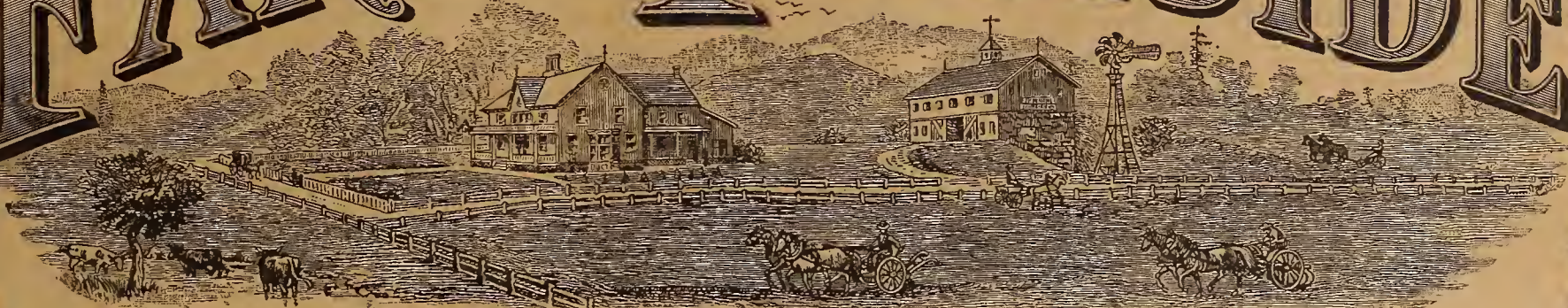


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A HAPPY NEW YEAR

FARM AND FIRESIDE



AN ILLUSTRATED FARM AND FAMILY JOURNAL

EASTERN EDITION

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WHAT is there about the beginning of a new year that brings new hope and a determination to make a better record than in the year that has been finished and gone to take its place with the thousands that have come and gone in the past? It is so, isn't it? We all step higher than we did a few days ago. The farm looks like a bigger thing than it did then. In fact, the older we grow and the more we know about farming, the larger does the farm seem to be in our estimation.

This is all right, and just as it should be. It is true that farming is a bigger business than it used to be. It takes more of a man to conduct a farm successfully than at any time in the past. New problems are coming every day. The man that would meet these and win must be up and doing. No time to scratch your head and think about it. The work must be hot and kept heating every day or we will soon be left with the tail end of the procession, and that fast going out of sight.

And just now, with the new year just sticking its head over the hilltop, somehow a new tune comes in to our hearts. We walk faster. The blood runs faster in our veins. Things look brighter than they did yesterday. We plan for great things this year. We will make our work count for more than it did last year. And this is all right.

But how are we going to do it?

It does not take much of a man to start out in a race. The thing that pays is to keep up the pace till the end. Nine times out of ten we "peter out" as we get along toward the finishing post, and let the other fellow take the prize after all. Our best licks are put in at the foot of the mountain.

Now, how are we to make sure of the wind-up? For that is what counts.

The best way I know of is to hit the bulls-eye every single day. Of course, there will be some days when things will drag. It is always so on the farm. Now and then there come days when it seems as if everything went wrong. We get up in a hurry. We hurry all day,

The Hope the New Year Brings

By Edgar L. Vincent

and we are all tired out long before night, and little really worth while done. Fellow farmers, those are the days that call for the very best there is in us. When days like that come the only thing for us to do is to grit our teeth, and say we will go through with a steady nerve, no matter what may come. To-morrow it will be all sunshine again. The hard things will be only a memory. The fence will be fixed up. The cattle back in the pasture all right. The damage done by the wind and the storm will soon pass away. Nature is a grand old friend to the farmer. Give her a chance and she will fix everything up all right.

And if we have kept back the bitter words that we wanted to speak—the words that would have left a sore place in the heart of someone we would not hurt for all the world—if we have done the kindly act when we just ached to sneak off and sulk all by ourselves, if we have kept a tune in the heart and a smile on the face through all the hard times, we will lie down at night with an easy conscience.

But there will be more to it than that if we are to reach a higher standard than we did last year or the year before. We must give better attention to the details of our farm operations than we have before. There is where most of us fail. We plan great things. We are great on laying out work; but we are dreadfully weak in carrying our schemes to completion. A well-planned campaign is good for nothing unless a wise general pushes it to completion.

Begin by adding two or three better cows to the dairy. Follow that up by selling off every cow that does not pay her way. Sell off the old sheep. Cut the heads off the worn-out hens. Do not have any animal on the farm, no matter how much of a favorite that animal may be, that does not bring in something in the way of profit. Our farm ships are many of them going to the bottom through leaks of just that sort. We can stop it if we will.

And then, we shall need some better farm tools. Many new inventions are being put on the market every year. We cannot take advantage of them all this year; but we may buy some one or two of the implements we need most. Next year we will be able to get a few more. Too often we are handicapped in our work by poor tools. I know they cost money. But almost always we can cut off some needless expenditure and buy tools we ought to have with the money saved.

There are also many acres on the best tilled farms that might pay better returns than they do. We all have such pieces on our farms. If all the tillable land

[CONCLUDED ON PAGE 4]



A WINTER SCENE IN NORTHERN NEW YORK

FARM AND FIRESIDE

PUBLISHED BY
THE CROWELL PUBLISHING CO.

SPRINGFIELD, OHIO

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The above rate includes the payment of postage by us. All subscriptions commence with the issue on press when the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post Office Money Orders, Bank Checks or Drafts. When none of these can be procured, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. Do not send checks on banks in small towns.

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Always give your post office at the beginning of your letter.

January Fifteenth

FARM AND FIRESIDE will be
our

Midwinter Annual

Among the many other good things which it will contain is the beautiful colored supplement, which will be appreciated by everyone. You know how attractive the other two were, and this one is equally as pretty. Some may like it better. It represents a traveler in the Western mountains coming 'round a cliff when he meets a—well, we can't describe it. You'll have to see it to appreciate the title,

"The Right of Way."

There will be an entertaining letter by Mr. Haskin on
Ireland.

Of the series of illustrated, descriptive articles on how the farmer lives in various regions of this great country there will appear

The Farmer in the Carolinas.

Don't fail to keep your subscription paid up. Look at the label to see that you are not in arrears. This special issue will be mailed to paid-in-advance subscribers only.

There's Nothing Too Good For Our People

and we are not going to spare either money or effort to make FARM AND FIRESIDE please you better than ever.

About Advertisements

FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment.

Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

APPEALS by circular to delinquent subscribers bring back different reasons for not renewing promptly; the usual reason given is that the matter has been overlooked because the subscriber was too busy to attend to it. We heartily congratulate our people on having such great crops to take care of that they could "hardly take time to write to kin folks, let alone renew subscriptions to papers." But the rush of farm work is now over for awhile, so, if you subscription is about to expire, please send in your renewal at once, and you will be sure of not missing a single number.

The Senator from New Jersey

The farmers of New Jersey now have an opportunity to render good service to their state and to the whole country. John F. Dryden is a candidate for reelection to the United States Senate. He ought to be defeated; and he will be defeated if the Jersey farmers make good use of their opportunity.

By his record in the Senate Mr. Dryden is opposed not only to the interests of agriculture, but also to the interests of the great majority of his fellow citizens. He opposed and voted against the Grout bill which placed a tax of ten cents a pound on oleo colored in imitation of butter. Before the Grout bill became a law, large quantities of colored oleo, costing about half as much to make as butter, were fraudulently sold for pure butter at butter prices. Consumers were defrauded and the dairy business was injured. Owing to the immense profits in cheating customers by palming off their counterfeit as the genuine article, the oleo manufacturers will endeavor at the first opportunity to have the Grout law repealed, or emasculated, and John F. Dryden is just the kind of a man they want around when the matter comes up in the Senate. They can depend on his kind every time. He is worse than Wadsworth. If Wadsworth deserved defeat, and he surely did, Dryden doubly deserves it.

Dryden's record in the insurance business is sufficient to bar him from representing the people of any state in any capacity, much less as United States Senator. No man running an insurance company that takes the extortionate rate of 40 per cent of the annual premium income from its policyholders—largely wage-earners of small means—and "books" it as "expenses of management" can be depended upon to support or vote for any measure in the interests of the people. His business training and life practices unfit him for making laws for the public welfare.

If public-spirited Jerseymen will now act together promptly and tell the members of their legislature what they want and what they need, no oleo defender, insurance schemer, or public service corporation representative will be elected Senator from New Jersey this year, and another victory will be recorded for the cow.

Tax-Dodging

Just as discriminations and rebates in freight rates have been the chief means of building up big monopolies like the Standard Oil Company by ruining the business of smaller shippers and crushing out their competition, tax-dodging is the method by which some men get a great and unfair advantage over others.

If fairly distributed, the taxes in no state in the Union would now be considered oppressive or excessively burdensome, but great inequalities of taxes in some states do make them so on a large number of tax-payers, and forces tax reform to the front as the most important issue before the people.

Ohio, to her great discredit, has the reputation of being one of the worst tax-dodging states in the Union. At the recent annual meeting of the Ohio State Board of Commerce Attorney-General Wade H. Ellis gave some striking facts on the subject. He said:

It is conceded that the wealth in personal property in Ohio is three or

four times that in real estate, and yet the grand tax duplicate of the state shows that real estate is about 70 per cent and personalty about 30 per cent of the total. We know that last year there was deposited in the banks and trust companies about \$400,000,000 in cash, and about \$60,000,000 of it was returned for taxation, and that last year there was more than \$500,000,000 worth of mortgages recorded and less than \$80,000,000 returned for taxation.

We know that the value of merchants' stocks last year was \$11,000,000 less than it was in 1895, and that of manufactured goods \$5,000,000 less than it was twenty years ago. In my own county of Hamilton the personal property in the first year of the Civil war was \$67,000,000. Now it is about \$50,000,000. Last year Hamilton county returned a smaller amount of credits for taxation than Darke county. Cuyahoga returned less than Stark. In money Belmont returned nearly \$400,000 more than Hamilton; Monroe returned nearly \$400,000 more than Lucas, including the city of Toledo.

The facts given by Mr. Ellis indicate how successfully and extensively taxes have been shifted by tax-dodging from personalty to real estate, and from city to country. That Hamilton county, including the great business city of Cincinnati, should return less credits than the agricultural county of Darke is simply preposterous.

The point of this is that farm owners make up by higher taxes the bulk of what is stolen from the state by tax-dodgers, and if they wish any relief, they must act together for tax reform.

Life Insurance in Wisconsin

The life insurance investigating committee of the Wisconsin legislature recently submitted a voluminous report to Governor Davidson.

The committee confined its investigation to three typical companies, the Wisconsin Life and the Northwestern Mutual of Wisconsin, and the Union Central of Ohio. The methods of the Wisconsin Life, a small company, are severely criticized in almost every particular. The Northwestern Mutual, a large company which has hitherto enjoyed a very high reputation, is criticized on some special points, such as proxy voting, private loans on policies by officers, agents and their friends and relatives, discriminations against deferred dividend policy holders to increase annual dividends, exorbitant commissions to general agents, harsh loan provisions, etc. In the Union Central the committee "struck pay dirt," and found much to condemn. The Union Central is criticized for manipulating its business in the interests of the stockholders, giving no cash surrender value to its policies, taking all profits from its nonparticipating policies but shifting all losses on such to other kinds of policies in violation of contract stipulations, discrimination in interest rates on policy loans, inside deals in defaulted notes, unfair commissions to general agents, excessive overloading of premiums on endowment policies, writing endowment policies on false estimates, etc. In brief, quoting the report, "The testimony shows that at every period in the history of this company, where the interests of the policy holders and those of the stockholders came in conflict, the policy holders suffered."

Based upon its investigation into the three companies the committee summarizes the evils it discovered as follows:

"It has been shown to the satisfaction of the committee among other things, (a) that the expense charges for insurance management are excessive and apportioned unjustly as between different classes of policies; (b) that premiums on most classes of policies are unnecessarily high; (c) that the dividend returns seldom correspond to actual conditions; (d) that discrimination is employed in the apportionment of dividends as between annual and deferred dividend policies and in interest rates on policy loans; (e) that excessive charges have been and are now exacted upon surrender of policies for cash, or for paid-up or extended insurance; (f) that unreasonable forfeitures of the reserve are exacted during the first three years of the policy; (g) that the policies and loan agreements of many companies contain harsh provisions."

J. C. Barnett.

Reading Notice Nuisance

IF THERE is any feature in the FARM AND FIRESIDE of which I, as a regular contributor, am especially proud, it is the absolute refusal of the publishers to give space to that abomination, the so-called "reading notice." These notices (which may be found in many or most others of the farm papers) are in their very nature fraudulent and deceptive. They are meant to make the reader take them to be an editorial endorsement. They are a prolific source of annoyance to the editor himself as well as to the contributor, both of whom desire to hew to the line of truth and fact.

Some years ago I used to give in these columns an annual review of seedsmen's catalogues. The publishers admitted these reviews, being convinced that they were not written for the purpose of boosting the seedsmen's interests, but as a help to the reader himself in the selection and rejection of seeds and plants, etc., more conspicuously advertised in these interesting publications. It surely was a bona fide transaction on my part and on the publishers' as well. Yet it was misunderstood in some quarters. In fact, I always had instructions (to me very pleasing) from the management, to pay no regard whatsoever to the advertising columns.

It seems to me, the reader may with more than ordinary confidence consider the advice and information found in the various contributions, editorial or otherwise, appearing in the columns of FARM AND FIRESIDE. The "reading notice" dictated or written up by the advertiser and in his interest only, and frequently in overdrawn and even ridiculous language, will not be seen in these columns, and I hope it will go out of fashion with all really good farm papers.

A. Greiner

Do Spendthrifts Make Business

WHILE I was doing a little business in a store a few days ago two young men entered. One purchased half a dozen cigars, and the other a pound of chocolate caramels. I know both of them, and know that they work at odd jobs in town and country until they get a few dollars ahead, then loaf about town until it is spent. I said to the merchant: "It is too bad the boys do not save their money and try to make something of themselves." "Oh," said he, "they are pretty good fellows. They make business. If they saved their money they would not spend it with us, and we would be out that much. The man that saves his earnings makes no business for us and we have no use for him. It is the man that spends who keeps business moving. These boys go to the country and earn some money from the farmers, and then come here and spend it. But for them we would never get a sight of that 'farmer money.' We like to see the boys free with their money; it makes business."

That was a new kink to me. While the boys were making their purchases the merchant joked and laughed with them, and told them the latest story, and when they started out he slapped them on the back and requested them to call again and he would "treat them right!" He told me that he noticed the boys had about twenty dollars each, and he was going to get all he could of it. He told me that he thought my idea of encouraging the boys to save up what they made working out was a little out of date. The right thing to do to encourage trade was to induce people to spend. "The more people spend the more business is done and the better are times," said he. "People who save their earnings are fossils, and it does not take many fossils to make times dull. Keep business lively by encouraging spending, buying and selling is what makes trade!"

I promptly informed him that he and I never could agree in that matter, because we looked at it from entirely different standpoints, so it would be useless for us to get into an argument about it. He wanted the boys to spend their earnings so that he could get them. I advised them to save as much as possible of them so that they could some day get into business for themselves, or become owners of property and substantial citizens. He thought my advice tended to check business, "restrain trade," he called it. In the light of my own experience, to say nothing of observation, I am satisfied my advice was sound.

Fred Grundy

About Rural Affairs

Food and Flavor

A PARTICULARLY convincing example of the effect that food often has on the flavor of an animal's meat is the wild duck. In the fall, when this bird feeds largely on water rice and other vegetable products, its meat is palatable and free from objectionable flavor. But after a while, when fish, crabs, etc., have constituted its almost exclusive diet for some weeks, the strong fishy smell and taste of the bird's flesh becomes too much for a weak stomach.

Likewise, we can give to the egg and the flesh of our domestic fowls, by feeding them regularly and persistently full rations of raw fish, crabs, etc., a most unpleasant fishy flavor. Or if our fowls eat freely and continuously of raw onions, eggs and flesh will soon become tainted with the penetrating onion flavor.

This does not mean, however, that fish and onions cannot be profitably or safely utilized for hen food. I have at times given to my hens regular rations of boiled or steamed fish and fish waste, mashed and mixed with a mixture of meals (bran nibblings, oat and corn chop), and failed to detect even the first trace of fishy flavor in the eggs or fowl flesh. I also quite frequently add a quantity of onions to the potatoes or other vegetables for the warm mash, without noticing onion flavor in the eggs. It is all a matter of the judicious use of these strong-flavored food materials. This fall I had an unusually large quantity of immature cabbages, cabbage waste, beet leaves, etc., and no other use for them except for cow feed. It is claimed that such materials are fed to cows giving milk only at the risk of having the milk tainted with cabbage flavor. That the cows food does affect the smell and taste of the milk, is undeniable. Every farmer is familiar with the peculiar scent and taste of the milk in spring after the cows have been turned out in a clover field. Where such things as cabbage and turnips are given indiscriminately, at any and all times, or in excessive quantities, the milk will be tainted with the irrepressible cabbage and turnip flavor.

I have fed liberal rations of cabbage and cabbage leaves right along, but always after good feeds of hay and cut corn fodder mixed with meals had been provided. I have been unable to detect the cabbage flavor in the milk or butter. I infer from all this that there is a way of making use of these various odorous food-stuffs without great danger of imparting to valuable food-products an objectionable flavor.

CEREAL BREAKFAST FOODS.

In these days when "cereal breakfast foods" (so called) come regularly on the tables of so many of our people, a treatise on this subject, such as Farmers' Bulletin No. 249 (Cereal Breakfast Foods, by Dr. Woods of the Maine Experiment Station and Harry Snyder Professor of Chemistry) should be favorably received.

The breakfasts in my family, in recent years, have largely consisted of cereal foods, and all are easily prepared and quite palatable, besides having the reputation of wholesomeness. We have now and then felt inclined to ridicule the evident desire of the manufacturers to sell us a lot of pasteboard in the shape of a fancy box, with a few crackers, or other cereal products thrown in gratis. But even the fancy box has its advantages. The bulletin before mentioned tells of them in the following language:

"In comparing the new cereal preparations with the old-fashioned ones we must not forget the neatness with which they are now put up. It was hard to tell what might have happened to some of the old brands. They were often ground from imperfectly cleaned grain, in small and inconvenient mills where it was hard to keep out dirt, and were very commonly sold from bins and barrels into which dust could easily find a way. In the modern mill cleanliness is found to be the best policy, and the neat, almost air-tight paper and cardboard packages in which the foods are sold are, as a rule, an assurance to the purchaser that they reach him as clean and fresh as they left the mill. In some of the manufacturing the preparation of the cereal food seems almost perfection as regards cleanliness."

As a particularly shining example I might point to a plant, which stands less than five miles from where I write this. Only the very best wheat is used there, and this is cleaned as thoroughly as ma-

chinery and washing can make it, and in the whole establishment not a speck of dirt or dust is allowed to exist if it can be helped. In most establishments where cereal foods are prepared and put up in fancy packages, similar efforts for the maintenance of perfect cleanliness are made.

It is true that we can get cheaper food-products in bulk. But we have not the same assurance of perfect cleanliness. Especially is this true of the common breads and pastry of the commercial bakeries. I believe in our own homemade bread, rather than in the regular "baker's bread." Toast in various forms made from homemade bread, is a frequent food article on my table. But man does not live on bread alone. The cleanliness of the neatly done up breakfast-foods appeals greatly to my fancy, and is worth paying for. We use them freely, well knowing that they are not cheap foods.

When comparing the different cereal preparations, the bulletin finds that the oat foods contain the largest amounts of digestible protein and fat, and their fuel value is highest. The wheat preparations, either plain or malted, rank next to the oats as regards digestible protein. The barley, corn and rice preparations are much alike, both in the amounts of digestible nutrients furnished and in the available energy which they yield. All these foods, compared with meats, contain considerably less digestible protein and fat than the flesh foods, but furnish large proportions of digestible carbohydrates which are practically lacking in meat products.

In the final summing up given by the bulletin, the following conclusions seem reasonable and just: "The extent to which cereal breakfast foods should be used for their special flavor and the variety they give to the diet must be decided according to individual circumstances. . . . All things considered the cereal breakfast foods as a class are nutritious, convenient, and reasonably economical foods, and worthy of an important place in the diet when judiciously combined with other foods."

Thorough House-Cleaning

A good thunder storm clears the atmosphere. The storm created by the packing-house revelations, during the past session of Congress, likewise led to a general thorough clean up. It precipitated a house-cleaning in the packing houses in Chicago, and later on led to a similar house-cleaning in those of England and other European countries. And finally the echoes of the stories of nastiness reached into our own homes, and many of us investigated more closely than ever before the character of things we eat and drink, and the ways and methods of handling and keeping them. In many instances we found abundant cause for apprehension and for radical changes and abstinence and caution. The methods of selecting, preparing and keeping our daily foods have not always been above reproach.

It is hardly an exaggeration to say that improper food and lack of proper care, and especially of cleanliness, in hospitals, etc., has usually killed more soldiers than were killed by the bullets of the enemy. But in time of peace it is not necessary to have so many people die from filth and filthy diseases due to lack of care in what they choose for eating and drinking.

At our house, we have learned to be more particular about handling milk, in buying canned meats, in using dirty dish-cloths and wash-rags, and even in drinking suspected water. We have learned to eat less meat, avoid everything of uncertain composition, and any purchased mixtures, to be satisfied with the simplest food materials, and in a general way to carry on our own home food inspection. Neither do we expect the government to bear the expense of such inspection. I feel that the packing-house revelations, horrible and sensational as they were, have, on the whole, been a very good thing, and led to more desirable results in a general and thorough house-cleaning.

T. Greiner

Shopping by mail is becoming so popular on account of the Rural Free Delivery that people living in the country have almost the same advantages that city people enjoy. To meet this special demand, the large concerns issue catalogues which bring to your home the complete contents of the great city department-stores. A glance through the advertising columns of FARM AND FIRESIDE will prove both interesting and profitable to you.

Salient Farm Notes

A COAL miner living in Ohio says he has been looking for something from me about the long strike, and about unjust demands, etc. I said nothing because it was plain as day all the time how the strike would terminate. My sympathies were all with the miner throughout the entire trouble. I felt sorry for him because he was being ground betwixt the upper and nether millstones. He was out of work and was living as best he could. But his "boss," the man who had full control of his hand and time, was skipping about the country holding conferences with operator chiefs, getting himself spread over whole pages of the daily papers, and living at the best hotels, doing what? Conferring! After the supply of coal the operators had piled up was exhausted, or nearly so, they and the miners' chief came to an agreement, and mining was "resumed." All that happened to us poor consumers was that we had to pay three cents more a bushel for coal than before the strike. I suppose we can stand it. At any rate we will have to. The miner had our sympathy while he was out of a job and living on scraps, now we ought to have his sympathy because we have to heat "the other room" with the cook-stove to save coal. When coal was seven cents a bushel we ran three stoves, and it seemed like good old summer-time all over the house. Now it is ten and twelve cents a bushel one room feels like a cold-storage chamber, while the temperature of the others is along about October. When the sun shines bright, and southern breezes are balmy, fires are banked or drawn, and at meal-time the cook does business with cobs and chips. I have sometimes wondered whether coal consumption has been sawed off at other houses like it has at ours. A few days ago I called at the house of a farmer and was invited into the kitchen, because there was no fire in the "other room." The good wife explained matters by saying that she only started a fire there when she expected company, "because Jim hadn't laid in a very big supply of coal because it was so high in price." High prices lead to economy. When corn was fifteen cents a bushel farmers loaded up a wagon, drove into the hog yard and shoveled it out, almost paving the yard with it. When the price went to fifty cents they shelled it and fed it in troughs. When the combination of operators and union bosses raised the price of coal they didn't think they were cutting down consumption. But they did. Now the miner and consumer can swap sympathies, because the former can't get steady work, and the home of the latter has chilly sections in it.

The coal operators combined to regulate the output, manipulate prices and control miners. The miners organized to protect themselves from the greed of the operators, to get the working-day shortened and increased pay. And also to prevent miners from working overtime, working for less than the boss-established wages, working when strikes were ordered by the chief mogul, or doing anything said mogul declared should be done by special workmen. And, incidentally, to compel members of their craft to contribute to a fund to pay the salaries and expenses of the chiefs, and to support during a strike those members who spend as they go and have nothing to live on when a strike is ordered. Thus the thrifty miner is compelled to help support the improvident. The union is a great leveler. The man who does his work in a botchy manner gets the same pay as the one who does it right. If he is discharged a strike is ordered, and the employer must take him back or shut up shop. But so surely as water seeks the lowest level these things will be changed, and a first-class organization founded on principles of business and common sense will take the place of the present union. Workmen will not come and go at the beck and nod of any boss who assumes authority over them. Neither will they allow themselves to be bound hand and foot by laws and rules that make veritable bondsmen of them, and compel them to pay a portion of their wages into a fund to support the improvident when they are arbitrarily ordered to quit work. At present the union is a miserably crude organization. It is oppressive, ruffianly. It has in it the germs of justice, equity and charity, but at present they are in the background. As time passes these will come to the front and become the ruling factors. Then the union will become a great

power for good, and will take the high place in active affairs it will be entitled to.

Short of Hay

In many sections of the country the hay crop of last summer was exceedingly short, and the price of good hay went kiting early in the fall. Many farmers who had a surplus, and many who did not, sold every pound they could get along without. Farmers and others who were obliged to buy awoke to find that hay was not to be had at what they considered reasonable prices, and that it was going higher every day. Some of them hustled about and got hold of small quantities, but not more than half as much as they usually feed during the winter and spring, and they are doling it out to their animals in homeopathic doses, making up the ration with various sorts of mixed foods. Those who have straw are saving their hay for spring work time and feeding straw now.

One man writes me that he cannot induce his horses and cows to eat the straw because it is an entirely new food to them. If he will let them get hungry enough they will eat it. He should give them their regular feed of corn, or whatever grain he feeds, in the morning and fill the manger with straw, and leave it there until they eat it. In no case should he allow them a particle of hay. It will not do to give them one feed of hay each week, as he suggests, for that will make them stop eating the straw. A friend of mine who has two good cows he is anxious to obtain a good supply of milk from until grass comes has hit upon a plan of inducing them to eat quite a quantity of straw as roughage. He runs equal quantities of hay and straw through a feed cutter, cutting both to half-inch lengths, mixing them well together as they are cut. This is dampened and salted when fed, and the cows clean it up. He had been salting his bran and grain feed, but he found they would eat that readily enough without salt, and so he now puts the salt in his roughage. I have tried this plan, and it works all right. By adding a little more bran and oil-meal to his grain feed he is keeping the flow of milk up finely.

Fred Grundy

* * *

If this paragraph is marked with a blue pencil

YOUR SUBSCRIPTION HAS EXPIRED

and should be renewed at once so as to get our

MIDWINTER ANNUAL

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Manure in Winter

IN A large proportion of barns there are wide stables in which the manure is kept for a greater or less length of time. This may not be the best method, but it is one in very general use, and until a better one is substituted should be made to answer the purpose to the best possible extent.

Instead of leaving the manure in the stables for a month, if it were to be drawn out once a week it would be an advantage in many ways. Then if the animals are properly bedded, that will not only keep them clean and more comfortable, but will add materially to the amount of manure—always an important consideration on the farm—and also help to absorb the liquids and preserve a more healthful atmosphere.

Gypsum or land plaster will also help in deodorizing the stable odors. Then a proper system of ventilation will be of great use.

As a rule, the manure made during the winter is now drawn and spread directly where it is wanted. This work can be done to advantage in winter, and is a great saving of time and labor in spring.—E. R. Towle in the American Cultivator.

Getting Onto Full Feed

One of the greatest mistakes the young, inexperienced feeder makes is getting his fattening stock onto "full feed" too quickly. This will apply to any stock on the farm. The hunch of steers that have done the best and made us the most money were on partial feed for three months. By this time their stomachs had become accustomed to the grain diet, and they were fed through without any of them getting "off feed." The same thing will hold true in feeding any stock on the farm. Begin lightly, and very gradually increase the ration so as to avoid setbacks.

Every sethback stock gets, not only is a waste of feed and time, but a serious loss in the digestive apparatus of the animal on feed. A fattening animal is a machine for using grain to the best advantage; for taking the raw material of the farm and working it over into a more finished and concentrated product. The better order this machine is kept in, the more successfully and profitably this can be done. It is steady feeding, not spasmodic feeding that counts in finishing an animal.

While you are considering this and putting it into practise just think what you can put along with that corn, like ground oats or wheat bran or oil-meal, that will add a little more hone and muscle making material to their ration and make the same grain go much further by keeping their digestive organs in better shape for the work they are performing. The best feeders all over the country are studying this side of the question and are not feeding clover hay, oil-meal, ground oats and such like feeds that are rich in protein, along with their corn, and are getting much better gains and a decidedly better finish, on their cattle, sheep and hogs at no greater cost per pound for pound. The better condition an animal's digestive tract is in, the more glossy his coat will be and the better appearance he will make in the sale ring. By this new method the dangers that accompany feeding are reduced to the minimum.—Forest Henry in the Northwestern Agriculturist.

Buying Dairy Feeds

In the "Rural New-Yorker," H. G. Manchester discusses the problem of buying feeds for the dairy as follows:

"What shall I feed this winter for grain that will leave me a profit?" This is a question that many dairymen are asking themselves at the present time. All feeds, save perhaps corn, are higher than a year ago, and the grain brokers prophesy still higher prices. What will make me the most good healthy milk at the least price? The man who has a barn full of good, early cut hay and the silo or silos full of good silage has partly answered the question. But suppose my hay is rather late cut, and I have corn fodder, what then? In the first place, it is not going to pay to keep any cows that are not profit makers: the scrubs and boarders must be turned out at once. If you have raised a lot of corn, we should have this ground, cob and all, just as fine as possible, not that we ordinarily favor cob when wheat feeds are cheap, but they are not now. To this cob meal we should add, depending on prices of feed stuff. If gluten can be bought at \$1.45 per 100, and cotton seed

or linseed at \$1.65, we should feed a mixture of about 400 pounds cob meal, 100 wheat bran, 100 gluten feed and 100 either of cotton seed or linseed. From six to eight pounds per cow per day, on the average, will furnish a good ration, and the bought grain will not be as expensive as it might be. If we had no corn, but had silage and good hay, we should skip any corn feed unless we could get pure hominy for perhaps \$1.25 per 100. Perhaps you can get a sugar or molasses feed for \$1.25, if so these may be economical to buy. Perhaps you can get oats for \$1.30 per 100. You want something cheap, but good for a basis to work on. Here are some mixtures that are good and still not expensive:

A—200 pounds molasses feed, 100 pounds hominy feed, 100 pounds standard middlings, 200 pounds gluten feed.

B—200 pounds molasses feed, 100 pounds ground oats, 200 pounds corn distillers' grain, 100 pounds middlings or wheat-mixed feed.

C—100 pounds middlings, 100 pounds corn distillers' grains, 100 pounds hominy feed. When feeds are high, as at present, is the best time in the world to do some figuring as to what it costs us to produce a quart of milk. When you get a good ration stick to it. Don't bring home a bag of something different every time you come from town. We must use our heads if there is going to be any profit in milk this winter. Make the food just as palatable as you can. Give the cows what salt they need, plenty of fresh air and pure water.

Summer Pastures in the South

Some years ago at the meeting of the Farmers' National Congress at Macon, Ga., the Western and Northern farmers were astonished at the luxuriant growth of Bermuda grass, and were able to realize the great importance to the South of this wonderful grass, and most of them wondered that more of it is not grown and more cattle pastured on it. Some day the farmers of the South will wake up to the value of their summer pasture of Bermuda and lespedeza, and the great abundance of corn and forage they can grow for fattening the cattle after taking them off the grass. Bermuda grass and lespedeza will give a better summer pasture in the South than the blue grass of Kentucky and the West, and when the abundance of the forage of the best quality that can be made from the cow-pea, and the great crops of corn that can be cheaply produced by good farming are taken into consideration, there is no reason why the South should not become as famous for beef and dairy products as any other part of the country.

A skilled Northern dairyman who went to Georgia some years ago, once wrote to us that he found that he could make as good butter there as he made in Vermont, could make it at a lower cost and could get a better price for it. When once the live stock industry is well established in the South in connection with cotton growing, we will soon hear less of its taking four or five acres to make a bale of cotton, for the men who rotate their crops and feed stock and make manure will soon put a bale as the minimum per acre. More pea hay, more corn and more cattle will do more for the cotton farmer than anything else, when they cease to look on everything but cotton merely as "supplies," to enable them to plant more cotton, for they will find that the "supplies" will soon be as profitable a part of their farming as the cotton.—Prof. W. F. Massey in the Practical Farmer.

The Foundation Importance of Correct Breeding

I put breeding first as being of the most importance. To be successful in any line, you must have material which is specially adapted for the purpose. If you put a Clyde horse into the hands of an expert trainer, he may get him to go a nice gait for a short distance, but where would he be on the race track in competition with the horse bred specially for that purpose? You might even go a step closer, as even a carriage bred horse that shows a good gait would be far out distanced on the race track by a horse bred for speed.

The same principle holds good with

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the dairy cow. She must be bred to produce the largest possible amount of milk and butter, and do it economically. To accomplish this you must use a pure-bred sire of some breed adapted and bred for that purpose. By using a beef-bred, or even the dual-purpose, sire, you will attain exactly the same results as in the case of the Clyde or carriage horse on the race track, and the result is you will always be out of money, which, in the end, is the main object we work and labor for.

It then is clear that we must depend on the pure-bred dairy sire to attain the highest results. In this we must be careful to select an animal that, besides having rich breeding, possesses superior individuality and strong constitutional vigor and stamina. A bull lacking these qualities is only a pure-bred scrub, and by its use no better results could be obtained than by the use of a common scrub sire.—H. Bal- lert, in Canadian Dairyman.

Manurial Value of Bran

Answering a question about the fertilizer value of a ton of wheat bran after it is fed to milch cows, "Hoard's Dairyman" says:

In 1,000 pounds of wheat bran there are 28.9 pounds of phosphoric acid which is, as near as may be, 2.9 per cent. Before wheat bran passes through the animal it contains about \$13 to \$14 worth of nitrogen, phosphoric acid and potash, these elements valued respectively at 15, 7 and 4.5 cents per pound. This does not mean that it will pay to purchase bran as a fertilizer, but that a ton of bran contains nitrogen, phosphoric acid and potash in such amounts that, if purchased in the form of commercial fertilizers, they would cost between \$13 and \$14.

After the bran has been fed and the manure of the animal carefully handled, saving a large part of the urine and excrement, about 60 per cent of its elements or value may be returned to the soil, but if the larger portion of the urine is lost and the excrement thrown out into the yard, to be leached by the rains, a much smaller amount is returned to the fields. Bran is rich in phosphorus and is a good feed for dairy cows.

Why Butter "Don't Come"

A great many letters have been coming to this office lately from different sections of the state telling of difficulties experienced in the churning of cream. Only to-day a letter has come to hand saying that it requires from two to three and one half hours to bring butter. Now, this is entirely too long, and in a good many cases could be remedied.

The principal causes for long churning are here given, and possibly those interested may find out what is wrong by comparison with these different causes. The following are the chief causes for slow churning:

1. Cream may be too cold.
2. Cream may be from "strippers."
3. Cream may be too thin.
4. Cream may be too thick, and thus whip up into a lather when the churning commences and by sticking on the side of the churn, is not really churning, even if the churn is revolving.
5. Churn may be too full.
6. You may be churning too fast and thus carrying the cream right around with the churn.

Of course, there are bacterial infections that will cause slow churning, but I would hardly suppose that you would be bothered to that extent. Probably in looking over your work some of these causes may give you a clew.—Prof. W. J. Elliott in bulletin of the Montana Experiment Station.

Crop Rotations

I was just thinking how beautiful a thing is a crop rotation. The majority of us farmers have learned to write a very good prescription for our own soil. It is right, too, that we should be able to do this. Then if we could only make it permanent what an easy, joyous world this would be for all. We are hearing some talk just now of "Uncle Sam" making an elastic currency for the banks to use in time of greatest need. Now we think that if we only had an elastic crop rotation we would not be asking for a rubber currency. Under a guaranteed crop ro-

tation local banks would very soon be filled and boiling over—with farmers' hard cash. Alas, and here comes Mother Nature with her hot, dry July and August, our clover is killed, our crop rotation is broken up—and we are back to the starting point.

At the present time we are making our rotation as follows: Clover sod aided by a second growth of hay and what barnyard manure we have for potatoes, corn follows the potatoes, wheat follows corn and back to clover, clover being mown hut once for hay. This I believe would be termed a four-crop rotation. The present dry season has given this rotation something more than an ordinary recommendation with us. The reader should not fail to grasp and hold the one fact here presented; that is, with the two fertilizers mentioned above, a catch of clover is more than passing certain. To render a catch of clover doubly certain we sow our seed late, after all danger of heavy frost, and harrow well both ways with a spike-tooth drag. We set the teeth perpendicular, letting the wheat plants look out for themselves.—T. L. in the National Stockman and Farmer.

The Effect of the National Pure-Food Law on the Glucose Interests

When the national pure-food law was passed by Congress, it was probably as severe a blow to the glucose interests of the country as those interests ever received. I have been told they are now seeking outlets for their products in Europe, and well they may, for the demand for their glucose in this country is bound to grow less and less. As there are now heavy penalties against putting it in other syrups without plainly stating the fact, it would seem as if one great outlet for the stuff as an adulterant having been cut off, the demand would necessarily be very greatly reduced. I shall be greatly surprised if there shall not, in time, be a toning-up in the honey market by reason of the greater demand that will naturally take place for honey that is known to be such.

But the public has been fed on glucose mixtures for so many years, purporting to be honey, and supposed it was honey, it will take that same public some time to learn that real honey is both delicious and sweet. Glucose has done more to disgust people with our product than almost all other agencies combined. They have gone to their grocer's and bought a mixture that was labeled honey, and got something else so vile that that one purchase would generally suffice for a long time. When a customer buys a package of honey after January 1st he will be almost sure to get just what he asks for.

The Hope the New Year Brings

[CONTINUED FROM PAGE 1]

of this country were to be cultivated as it might be, this would be the greatest farming nation on the face of the earth. We like to think that it is so now; but we are mistaken. There are some little bits of countries, about big enough to carry around as a pocket-piece, that beat us all hollow in that line. We have been too busy getting great, big farms on our hands to take the best care possible of what we have. The time is coming, though, when we will work harder to get all we can out of a few acres than we will to get more land.

But when the year rolls round, as it surely will, and we take a look back to the beginning, we shall have missed it if we do not pay more attention to the matter of the better citizenship of our country. It will not do to leave the matter of the government of our land entirely to the men that make a business of it. That is a place where we have made a wonderful mistake in the past. Every farmer in this country ought to be a politician in the highest and best sense of the word.

That does not mean that we should all set out on a mighty hunt for office. The best politicians of this country never see the inside of a public office nor draw a cent of pay from the public treasury. They are the ones that read and study and think, and then do the grandest thing any man in any country can do, go to the polls and vote out their honest, earnest solid convictions. And if they do not do this they are missing the greatest blessing ever given to men in this world.

The man that loves his country well enough to be the best citizen he can will surely love his home, his children and the wife that bore them. And that will make him a good farmer and a safe man to trust always and everywhere.

An Excellent Investment

I HAVE a professional friend who owns two fine farms, which he succeeds in having farmed very much to his liking. On both farms, in addition to the ordinary cereal crops, he grows potatoes and tobacco extensively. On one farm he has a large dairy, and on the other steers are fattened.

The other day in conversation with the wife of my friend I said:

"Does 'G' make farming pay?"

"Yes, indeed, he says he gets ten per cent on the investment in the farms—eight per cent in money and two per cent in fun."

Knowing my friend as well as I do, I could readily believe his "fun" returns of two per cent from his farms, and I think I am quite safe in guessing that he takes the two per cent out first, for he is one of those optimistic, cheerful, bright-voiced fellows, who fully enjoys the privilege of living.

Now, to point a moral to the incident, isn't it a fact that this same percentage of "fun," as my friend calls it, this return of enjoyment, pleasure, true satisfaction, contentment, moral force, or whatever other name we choose to give to that part of good farm living and doing that is not convertible—thank the Lord!—into cash that we may spend or invest, is the very part of the return of our fields and flocks that too many of us are missing?

Many of the many are not actually missing this side line of the farm, but are failing to give the farm credit for it; and, psychologically, one might as well not have a blessing as not know he has it, or not know that it is a blessing.

It will appear to me as I give thought to some matters collateral to our business of farming, that in these days of the migration of country life to the cities and the intensified loss of identity there, so that the son of a typical countryman sinks to the level of an average city man, that it is one of the pieces of the "fun" of the farm that we who stick to the soil have in our keeping the individuality of the proud American citizen. Even we grown-up men and the growing-up men can't all be "magnates," millionaires or "captains." There must be a citizenship better than these if the foundations of the structure of our institutions shall remain preserved. Against the power and politics of the cities where men run money-mad we must oppose the stronger force of the patriotism, the true living, the sublime "fun" of the farm and the farm home. "What though on homely fare we dine, Wear hoddin grey an' a' that?"

there is a two per cent return from the farm that is not quoted in any market report, and would be a jewel before swine on any board of trade.

Pennsylvania. W. F. McSPARRAN.

Careful Cultivation of Corn

The report upon the condition of the corn crop in the State of Ohio indicates a crop far above the average. This is of course very gratifying to the Ohio people. It proves what a number of older farmers have been advocating for several years, that in the corn belt, the larger number of our farmers plant too many acres of corn.

In Ohio the farms are not as large as in the states farther west, and because of the smaller farms there is more intense cultivation. By that I mean that more care is given to the cultivation, not only of corn, but of all crops, every acre of land is made to produce something.

In too many of our corn-growing states a man who does not plant from fifty acres of corn upward is not considered much of a farmer. On account of scarcity of help it often happens that the corn does not get the cultivation it needs. I have heard a number of young farmers say "I do not cultivate my corn more than three times and that is enough."

It is not a question of three times nor five times, it is whether the land is well fertilized, if the rainfall is sufficient, and if the weeds are killed. In too many of our large corn-fields one may find spots of a quarter or half or perhaps an acre of ground where the corn is under average. The stalks are small, and instead of ears we find nubbins. Many, many times a farmer will plant nearly one hundred acres of corn. It does not receive all the cultivation it needs, even though the planter uses a two-row cultivator. Then in November everything is laid aside until the corn crop is harvested. The teams start for the field at daylight, or even before, with forty-inch wagon boxes and extra throw boards to prevent the ears being thrown over. Every man has a team and wagon to himself. It is hurry, hurry, hurry, a great many "nub-

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bins" are left on the stalks, some large cars are thrown over. Sometimes the large box is heaped so full that an ear here and there is jolted off; the driver does not see it and the next wagon smashes the ear. There is a little waste here, and a little waste there, and it is absolutely true that such a farmer does not get as much return from his land as he would if he carefully cultivated a less number of acres. "But" says one "what shall I plant?" Seed part of it down in timothy or clover, and while I do not like to see hay sold, yet the hay land would be growing stronger and soon be ready to produce a large yield of corn again.

Illinois. U. S. ELLSWORTH.

The Farm Wood-Lot

In this section of the state there is an ever-increasing number of farmers that have no wood-lot whatever, though less than forty years ago logs that would now bring twenty-five or thirty dollars per thousand feet, were burned to get them out of the way. The high prices offered for timber has in many cases induced short-sighted owners to cut trees that were rapidly growing more valuable—increasing in size, and advancing in market price. Some have been still more unwise, and sold off every vestige of timber, large and small. These are now compelled to buy wood at high prices, or depend on coal and oil to heat their homes and cook their food. They have thus put themselves at the mercy of the coal barons and the Standard Oil trust.

If they had been wiser in time they would have carefully kept a few acres in timber, cutting out only what was mature, and the undesirable and worthless sorts. Some trees never amount to anything either for timber or wood, yet they take up room and keep more desirable sorts in check. These ought to be cut out for what they are worth as firewood, and in open spaces desirable kinds planted. What kinds to plant will depend on the location. Here it would doubtless be the red or white oak. These sorts grow fast, and are valuable for timber and for wood. On more moist soils the white ash would be the best. This wood is used so extensively

chestnut and walnut, if not too crowded will soon produce nuts annually, and these find a ready market in the cities, so that an income is derived from the trees while they are growing and before they attain timber size. One who has not tried it has little idea of the amount of firewood that can be secured annually from a five-acre lot that is carefully managed. When an oak is cut, several sprouts will start up. A few of the strongest should be allowed to grow, and the rest cut off so that they will not take from the best ones. The sprouts that are allowed to grow will utilize the old root growth which supported the parent tree, and the result will be a surprisingly rapid growth. After a few years the largest of these sprouts can be cut for wood, when more shoots will start up, to grow and be cut in turn. With such treatment the supply of firewood, instead of becoming exhausted, grows more plentiful each year. There are other reasons for preserving the farm wood-lot. It acts as a wind-break, gives shelter to the birds that are the farmer's best friends, holds back the rains that would otherwise go to swell the floods in spring, and last, but by no means least, it is a thing of beauty. We should oftener cultivate a taste for the beautiful in nature, and not let our greed for more land to work cause us to cut off our woods too closely. We would better study how to make our acres produce more rather than to add more acres to our tillage. It is not how many acres we can cultivate, but how much we can make each acre produce by more cultivation and better management that counts for success and adds the most dollars to our bank account, to say nothing of the satisfaction derived from a thing well done.

Michigan. APOLLOS LONG.

Japanese and Silver Hull Buckwheat

Last year I told the readers of FARM AND FIRESIDE the result of my experience with Japanese and Silver Hull buckwheat. Both kinds were grown on practically the same kind of ground. The Silver Hull yielded better and also a better quality of grain.

This year I sowed a part of my



CUTTING UP THE YEAR'S WOOD

in farm machinery that the supply is becoming exhausted. In the rich virgin soil of the woods trees that are not too crowded will grow rapidly, and a five-acre tract that is properly managed will soon be the most valuable part of the farm. In the past, with an abundance, we have been too prodigal in the use of our wood, and with the changed conditions we have in many cases not yet adjusted ourselves. We must learn to wisely manage the remnants of our forests or we will soon be without timber of any sort, except such as is shipped in from a distance, for which we will be compelled to pay high prices.

Keep the stock out of the woods. The pasture there is not valuable, and the stock will do more harm to the young growth than will be gained by the feed secured at such a sacrifice. Cut out mature trees, before decay begins, and all such as are damaged, deformed or dwarfed beyond repair; then plant, in the open places acorns and nuts, chestnuts, black walnuts and such. The

ground in each of these two varieties of buckwheat. The Japanese had somewhat the best soil, the fertilizers were identically the same, both in quantity and quality. Both varieties matured at least one week earlier than usual. The Japanese variety yielded from three to four bushels more to the acre than the Silver Hull variety. The quality of the grain in the Japanese variety was much better than it was last year, but it was not as heavy to the measured bushel as the Silver Hull.

Every grain of the Silver Hull variety was filled out plump and full. The Silver Hull variety grows somewhat taller than the Japanese under the same conditions, but the straw is not so thick and stubby.

I have grown the Japanese variety for about ten years and the Silver Hull for two years, and I will have to try them both for another year or two before I decide to abandon either for the other.

West Virginia.

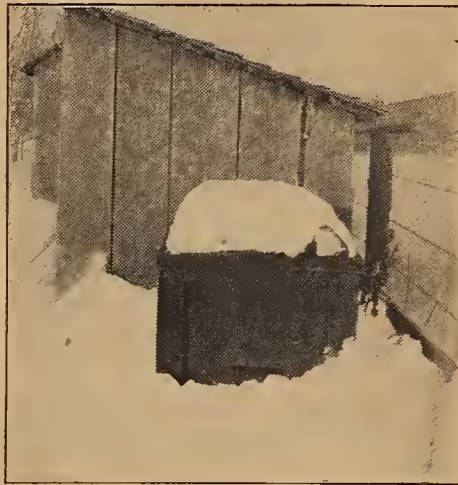
A. J. LEGG.

Work Among Outdoor Wintered Bees

While some assert that entrances of hives can be closed with snow without smothering the bees, I much prefer to keep them open. If snow is piled up in front of hive entrances several feet and a "thaw" should occur followed by cold weather, the hives may be closed air tight, and then there will be no bees to hum on next summer's flora.

The fronts of hives—inclosed in wintering cases—I keep clear of snow, but the sides and back of same I like to have buried in snow as much as possible. It helps to keep off the piercing winds, thus keeping the hives warm, and saving stores.

If one wants to shovel snow against wintering cases to protect them, as I have often done, great care should be taken not to in any way jar the case. Bees disturbed on a cold day will break



OUTDOOR WINTERING

their cluster somewhat, and those that wander off will chill and starve. Such disturbance repeated often will so reduce a colony that it will "spring dwindle," or perhaps succumb altogether.

I once had a Cyprian colony that went into winter quarters with plenty of young bees, but when spring opened it was much reduced in numbers. I could not at first find the reason for this, but finally it occurred to me that, as Cyprian bees are very irritable, my shoveling the snow against their case had caused the reduction in numbers. Italian bees are not as bad as this, but some bees will be lost every time the hive is disturbed on a cold winter day.

Of late years I have swept instead of shoveled the snow against the cases, for no matter how careful I may be I bump the cases once in a while with the shovel.

If snow should blow into the hives through the entrances, it may be removed with a goose or turkey wing feather. It is better, however, to prevent snow blowing into hives. This can be done by leaning a wide board against the entrances of the wintering cases.

Toward spring entrances will sometimes be closed with dead bees. One should rake them out occasionally with a piece of bent wire. Care should be taken not to disturb the bees within the hives. But if a warm day is chosen for this work, no bees will chill, I think, even if one does disturb them some.

If the entrances to the hives are more than three eighths of an inch deep, mice are almost sure to enter and disturb the bees. They will also gnaw up the combs, and, perhaps, make a nest in such an ideal place. If the entrances have not been made mouse tight in the fall, and one sees evidences of mice in midwinter, such as gnawed bees, tracks up to the entrances, one cannot know but that making an entrance mouse proof then will lock up one of the rodents in the hive. The only remedy for this state of affairs that I know of, is to trap the mice at the entrance. My way has been to fix a mouse-trap that a mouse either trying to enter or come out of a hive had to go into the trap.

One winter I was also troubled with "wood mice," so called, I think. These were able to go through an entrance only one fourth of an inch deep. I trapped three as above suggested, and then was bothered no more. Perhaps I raked them together with pine needles that I used as a packing material. At any rate, had I been troubled with them in after years, I would have used drone entrance guards to keep them out of the hives.

As some might be interested, I will say that these "wood mice" had a soft, grayish fur and eyes like shoe buttons, while their heads were shaped like that of a mole—or rather like the head of a shrew, an insectivorous animal closely related to the mole.

Wisconsin. F. A. STROHSCHNEIN.

Gardening

Bridal Wreath and Crimson Rambler

A READER asks how Bridal Wreath and Crimson Rambler are most easily propagated. The Bridal Wreath is one of our finest *Spiræas*. (*Spiræa prunifolia*, var. *flor. pleno*), early flowering, very handsome, flowers large and double. It is one of the shrubs that should be found in the border or lawn of every rural home. But I do not know of any way to propagate the Bridal Wreath except from hardwood cuttings under glass. If one has no greenhouse, there will be very little else to do but buy rooted plants from the nursery.

Crimson Rambler rose is another plant that is almost indispensable on the grounds of even a modest rural home. I have some specimens trained up on the south side of the dwelling, and others as single specimens in the garden. They are so strikingly showy when in bloom, during June, that we simply must have them. To propagate them is not very difficult. Cuttings two to three inches long may be made in November and December of the current year's growth, and planted in sand, in flats or pans, in a cool greenhouse. In February or March, when rooted, they may be planted in thumb pots, or kept growing in the flats until May or June, then planted out in rich beds outdoors. But cuttings of ripened wood can also be planted in spring in V-shaped trenches, and if the soil is rich and well prepared they will make good plants by fall. Strong plants may be bought at the nursery, seed or department store at very moderate prices. I repeat, that these roses are things that we feel we must have on the place.

About Orris Root

W. N. W., a Missouri reader, having heard about the profits in growing "orris" root, and that these profits are so much greater than could be expected from ginseng growing, asks where he can get the plants, and what they will cost him, and how he should manage the crop. He asks me something about which I know very little from actual experience. But from what general knowledge about these things I do possess, I would not advise any reader to go into either ginseng or orris root growing in the expectation of getting rich over night. The commercial orris root is used for the manufacture of "orris butter" also of an alcoholic tincture or perfume, and for similar purposes. It is the root of *Iris Florentina*, a near relative of our common garden iris. The flowers are white. It is generally cultivated by root division, the cuttings being placed the first year in a nursery, then set in rows a foot apart, usually in stony and dry soils. Bailey's "Cyclopedia of American Horticulture" says: "There is no reason why orris root should not be grown in many parts of this country, but the returns at present are not large."

Gas Lime for Wire-worms

The following comes from James M. Ricketson, of Massachusetts:

In reply to the reader who inquires what will destroy wire-worms, let me say that I had them in my garden. I spread a very light coat of gas lime over the ground, and saw no more wire-worms for two years. It is a cheap remedy, costing nothing but the hauling from the gas works."

Gas lime has often been recommended as an anti-bug and anti-worm application, and has some merits as such. It can be used in spring or early fall; or as a top dressing in a circle around plants during the growing season. But I would always try to plow and work up the land just before the final freeze-up in the fall so as to break up the winter quarters of the then dormant pests, and expose the enemy in that helpless condition to destruction by cold and perhaps birds.

About Dewberries

My plants of the Austin dewberry, which have in former seasons given me at least a few berries, although never enough to satisfy my healthy appetite for that particular, and, when fully ripe, quite luscious fruit, was so badly frozen back last winter that we now have the usual immense growth of vines, but practically no berries. I have seen dewberry vines on sandy hillsides loaded

with berries, and bought the fruit from those who picked these wild ones, and we greatly enjoyed them. Evidently my soil is too strong for them, or otherwise not of the right kind. While we may have this Austin dewberry as a curiosity on the place, just so we can say we have it, it is for us practically worthless, and I am sick of it even as a curiosity. Can anyone grow a crop of any dewberry on strong loam that favors vine growth at the expense of fruit production?

Horseradish Notes

T. E. H., of Sioux City, Iowa, asks me how to best grow horseradish for market; whether the root can be improved by top pruning, and how to clear the land from the root when it is desired to change crops. Horseradish presents some difficult problems for the average gardener, and unless one has just the right conditions for success, I would not scatter the advice to engage in its culture broadcast and indiscriminately. If one has a home market for the grated root, as some growers in my own neighborhood have, who put the grated horseradish up in small bottles, or to sell it by the pint or quart, then it may be advisable for the general gardener, especially if he has plenty of home help and can do the cleaning and grating cheap, to set out a patch sufficiently large to furnish the roots needed for this purpose. It will not make so much difference about the size and shape of the roots. But when one has to sell the root as root, it must be of good shape and size, and to grow horseradish so as to have a perfect root is no child's play.

It wants in the first place a deep, rich, moist loam. Some black, mucky soils are first rate for the purpose. The next thing is to check the tendency of the root to branch out and make a lot of straggling offshoots of pencil thickness rather than one thick straight root. Top pruning will not help matters. But in loose soils, the grower may remove some of the soil near the root crown, and with a knife cut around the main root so as to sever the newly starting branches. In some cases the sets have been planted in a slanting position so as to keep the greater part of the main root near the surface, and make it easier to work around it for the purpose of cutting the branches off.

Another serious problem is met when one desires to clear a rich moist loam from horseradish. Every little root that is left is bound to make new growth again. By keeping constantly at it, plowing and reploting, and tearing out the roots, and finally choking the horseradish with clover, alfalfa, vetch, or even grain crops, the end may be accomplished.

Bluestone for Spraying

From "California Fruitgrower" I quote the following paragraph, appearing in an article on "Formula for Bordeaux Mixture":

"Of bluestone, only the best quality should be used. There is a good deal of variation in bluestone, as it contains always more or less iron sulphate or copperas, but this is readily discernible, and a sample that contains any considerable amount of rust color copperas should not be used."

A year or two ago Dr. Van Slyke, chemist of the New York Experiment Station, at Geneva, made some investigations in regard to the purity of the copper sulphate on sale in the East. He found no adulteration worth mentioning. Pure copper sulphate has a bright blue color, unless by long exposure to the air it has lost some of its water of crystallization. In that case it is apt to lose its crystal form and assume a whitish, never a brownish, color. A green, or brown (rust) color would surely point to adulteration with the cheaper sulphate of iron or green copperas; but the simple loss of part of the water of crystallization, as shown by the whitish color and disintegrated form, only makes the copper sulphate all the more valuable. In buying it, you get more for your money, buying less water. In reality, the danger of the purchaser who knows what he is about getting adulterated copper sulphate in the open market is quite remote. In these times, however, when this chemical is a necessary equipment of every well-regulated farm and modern garden, we must become fully acquainted with all its points and characteristics, so there will be absolutely no chance of being deceived by adulterations.

A. Greiner

Fruit Growing

Kieffer Pear

THE "Northwest Pacific Farmer" has a good word for the Kieffer pear. We extract the following: "If a pear is desired which can be taken direct from the tree and eaten, of course the Kieffer is not the one wanted. It must be kept after it is picked and given time to ripen thoroughly. It then has a flavor which is not even suggested in the fruit at an earlier stage. It will not keep long after becoming ripe, but it does not need to. Those who have a taste for pears will soon dispose of it. The Kieffer has been recommended for canning. Those who are inclined to disagree may learn something from the reported experience of a canning company in Michigan. The pear crop was short, except Kieffers, and they were plentiful. Several thousand bushels of these were purchased and stored until ripe, when they were canned. The result was a product of unusual excellence."

We know of two farmers in this vicinity who ripen these Kieffers and sell them at a good price in neighboring towns. A few years ago a Northern man bought a farm near here. Upon the farm there were a goodly number of Kieffer pear trees, considered of no value. In the same neighborhood were several farmers who had a greater or less number of Kieffer trees. These farmers cultivated their pear orchards and the result was the trees blighted badly. Our Northern man, attaching no value to the trees, did not pay any attention to them, permitting the grass and weeds to grow without any effort at restraint from the owner of the orchard.

Now note the result: All the trees of his neighbors who plowed their orchards were badly blighted, and the fruit crop practically a failure. Mr. Northern Man, however, had a bounteous crop. He was of a thrifty turn and ripened his pears in a room specially prepared for the purpose. Result: He sold \$500 worth of pears the first year, peddling in wagon from town to town. He repeated above for several years.

I have had some practical experience with this pear. Probably fifteen years ago, I planted twenty-five or thirty Kieffer pear trees. I cultivated them carefully until they reached maturity. Then being engaged in other business in town (though living in the country) I neglected the trees and left them to care for themselves. For two years they bore good crops, but as the fruit did not ripen on the trees, and the fruit seemed actually worthless—we considered them of no value. The third year the crop was heavy. My wife thought perhaps it might be well to can a few as an experiment. The experiment was encouraging. She then made propositions to sell to our white and black neighbors. She only asked 50 to 60 cents a bushel. Result: \$50 to \$60 pin-money for my wife. Every succeeding year she has sold from \$35 to \$60 worth of pears, the purchasers coming for them. These buyers used them for canning.

On good land, a vigorous tree will easily produce several bushels of pears. A reliable commission house in Birmingham, two years ago, offered me 50 cents a bushel for one car-load or half a car-load, f. o. b.

As the trees are not cultivated often they begin to bear fruit; as they are vigorous in growth and extremely hardy; as they bear abundant crops and rarely fail to produce good crops—one can readily see that in the Kieffer pear we have a money crop not to be despised. These green, tough pears are sold for canning purposes. Perhaps if the fruit were ripened before canning, as suggested by the article which I have quoted above, the results would be more satisfactory; but canned in the green state, just from the tree—the purchasers are satisfied.

After the trees reach bearing or fruiting age, cultivation must cease or else the trees will blight. At least that is my observation and experience. Of course blight, to a greater or less extent, may occur even when the trees are not cultivated, but not usually to any serious extent.

The Kieffer is a tree of vigorous growth. This natural tendency to vigorous growth must be, in a measure, arrested, rather than encouraged. This is best done by suspending cultivation, leaving the soil unplowed.

Mississippi. EDWIN MONTGOMERY.

Pruning Peach Trees

SUMMER PRUNING—R. M., Millersburg, Kentucky—During June of the first year the orchard should be gone over, and the sprouts that are too near the ground should be removed; also head in all shoots that are growing so rampantly as to make a one-sided tree. This does not take much time, and will help very much in the formation of a good top.

LATER PRUNING—We have no experimental evidence as to the best system of later pruning in Kentucky, but the following method is probably worth a trial, although it may not prove to be the best practise. It is a little less severe than the system used by J. H. Hale, in his Georgia and Connecticut orchards:

Cut out crossed and undesirable branches. Head in the tree, cutting off about one third to two thirds of the preceding year's growth. It is not necessary to go over the tree trying to cut off every little twig. The leaders are the ones that need attention. When heading in these leaders, it is best to cut them off to a side branch rather than to a dormant bud.

Frequently when an inexperienced man practises heading in, he is tempted to shear the tree all over, and leave it a smooth, oval form. It will be seen that this is very different from the method described above, where only the leaders are cut back and the side shoots thinned so as to leave an open top.

The amount of heading in to be done should vary from year to year, according as the crop promises to be large or small. As the trees get older less heading in is usually necessary.

In the case of old orchards that have long, bare limbs, it is frequently desirable to cut these entirely off and form a new head. A part of the limbs may be left the first year, so that while the new head is forming there will still be a part to bear fruit, or, if there is no crop, the entire tops may be cut back. If possible, there should be some small twigs on each limb.

Some of the advantages that are claimed for trees that are headed in somewhat are:

The fruit is easier to pick.

The trees are less likely to break, as the fruit is not borne at the end of long, bare limbs that act as levers.

The trees are easier to spray.

This pruning thins the fruit.

The orchard remains thrifty for a longer time.

TIME TO PRUNE—The best time to prune is in the late winter, so as to have the brush removed before the trees are sprayed. So far as the tree is concerned, other times may be as desirable, but the labor question makes this the time to get the work done before spraying. Some summer pruning may be of value, but this has been little practised in New Jersey.—Bulletin New Jersey Experiment Station.

California Privet

T. G., Lonaconing, Maryland—This is often grown from cuttings, but may also be grown from seed. I note that J. M. Thorburn & Co., of New York City, offer seed of it at eighty cents a pound.

Deadening Trees by Inoculation

J. M. G., Georgetown, Kentucky—I have never heard of any method of deadening trees by inoculation, and can conceive of no satisfactory way of doing this. There are a number of chemicals which if put about the roots of trees would kill them, but the cost would be more than that of grubbing them out in the ordinary way, and their presence in the soil would be more or less hurtful to it.

Kieffer Pear from Cuttings

D. P. D., East Falls Church, Virginia—The Kieffer pear may be grown from cuttings in many of the Southern States, where the soil is rather warm during winter. To grow them in this way they should be made up in the autumn. In the extreme South these will generally root during the winter if planted at once in the open ground. Farther north, however, it is necessary to bring in the use of a hotbed in order to get good results. The wood from which the cuttings are made should be that of the preceding year, firm and hard, and one fourth of an inch or over in diameter.

Samuel B. Green

You are no doubt very busy just now, but we trust that you will take time to read the advertisements in FARM AND FIRESIDE this issue. There is such a big variety of good things that you are sure to find something you need.

HOW TO FERTILIZE.

Every farmer knows that plants need Food as much as cattle. He knows, too, that plants cannot get all the Food they need out of the ground alone. He must supply them with certain Foods himself, or they will not thrive and bear their full yield of fruit. Exactly as he supplies hay and oats to his horse so he must supply Nitrogen, potash and phosphate to his plants. He may buy these in the open market exactly as he does his hay or his oats, or he can buy them in combination in the form of a "complete fertilizer." There is no secret value in the complete fertilizer, it is nothing more nor less than the three ingredients combined and sold at a higher price. Of the three Nitrogen is by far the most expensive and it will pay the farmer well to stop and think before he buys it in this combination form.

The Best and Cheapest Ammoniate.

The cheapest and most practical form in which to furnish nitrogen to plants is Nitrate of Soda. In the rainless region of Chili are stored away vast quantities of Nitrogen in what is known as Nitrate form—the only form in which Nitrogen can be utilized by a plant. The Nitrogen which exists in organic matter, that is, roots, stems, dead leaves, weeds, leather, dried blood, etc., and also Nitrogen in the form of Ammonia salts, must first be changed to Nitrate before it can be taken up by the plants in the soil. This change is dependent upon conditions of weather. If the season is backward or there should be a prolonged drouth it may be so retarded as to deprive the plant altogether of Nitrate Food at the very time it needs it most; moreover, some of these materials in the form of Ammonia salts leave acid residues in the soil. Nitrate of Soda, on the other hand, is entirely independent of weather conditions and it leaves the soil alkaline and sweet. It is immediately available under any circumstances, for it is readily soluble, and as soon as it comes in contact with the roots of the plants is at once absorbed by them, and continues to be absorbed until used up. It can readily be seen from this that the utility of the various forms of Nitrogen ranges from nothing at all, when conditions of temperature or soil prevent Nitration, to 100 per cent, when Nitration has already taken place, as in the case of Nitrate of Soda. More than this the process of transforming nitrogen, as it exists, for instance, in cotton seed meal, dried fish, dried blood, tankage, etc., into Nitrate is very wasteful, much valuable Nitrogen being lost in the process. Soil experiments have shown that 100 pounds of Ammonia in these organic forms have only one-half to three-fourths the manurial value of 100 pounds of Ammonia in its NITRATED form of Nitrate of Soda.

A Great Saving.

In view of these facts it seems extraordinary that farmers should continue to purchase their Nitrogen in compound form with phosphate and potash, when they can procure it much cheaper, and ready for the plants' immediate use, in the form of Nitrate of Soda. Some years ago the New Jersey Experiment Station, after analyzing 195 different "complete fertilizers," found the average agricultural value, that is to say, the market price of the various constituents, to be \$25.66 per ton, while the average selling price was \$34.23 per ton. In some instances the actual value of the plant food was as low as \$15.00 per ton, while the price per ton was \$35.00. The average complete fertilizer costs usually 25 per cent more than it is worth. Available Nitrogen in the form of Nitrate of Soda costs about 17 cents per pound. It costs from 20 to 30 cents a pound in so-called "complete fertilizers," and even

then is often in a form which is not available as food for the plants, for it must be converted into Nitrate. The time required to do this varies from a few days to a few years according to the temperature of the soil and the kind and condition of the material used.

It must be recognized that the farmer should have a chance to derive some profit from the use of a fertilizer, and wise buying is a prerequisite to successful use.

How It Helps Crops.

If a very young pig or young calf does not have an abundance of the right kind of food when it is young it becomes stunted in growth, and never recovers from it, no matter how judiciously it is afterwards fed. The intelligent cultivator has learned that the same holds good in the feeding of plants. Nitrogen is the element which enters most largely into the building up of the plant itself—its root, its stem and its leaves. Most plants need to take up about 75 per cent of their total Nitrate Nitrogen during the early stages of their growth. It is plain, therefore, that the cultivator cannot afford to over-

The highest agricultural authorities have established by careful experimentation that 100 pounds per acre Nitrate of Soda applied to crops has produced the INCREASED yields tabulated as follows:

Barley.....	400 lbs of grain.
Corn.....	280 " "
Oats.....	400 " "
Rye.....	300 " "
Wheat.....	300 " "
Potatoes.....	3,600 " Tubers.
Hay upwards of.....	1,000 " Barn cured.
Cotton.....	500 " Seedcotton.
Sugar Beet.....	4,000 " Tubers.
Beets.....	4,900 " "
Sweet potatoes.....	3,900 " "
Cabbages.....	6,100 Pounds.
Carrots.....	7,800 Pounds.
Onions.....	1,800 Pounds.
Turnips.....	37 per cent.
Strawberries.....	200 quarts.
Asparagus.....	100 bunches.
Tomatoes.....	100 baskets.
Celery.....	30 per cent.

Nitrate of Soda is a plant tonic, and an energizer; it is NOT a stimulant in any sense of the word.

Phosphatic and Potassic manures should usually be applied in connection with Nitrate of Soda at the rate of about 250 pounds to the acre of each. We do not

lowing are fair samples of the results reported, giving the weight of cured hay in each case:

HORACE FIELD, MATTAPOISETT, MASS.

Plot without Nitrate, 60 lbs. Plot with Nitrate, 90 lbs.

"Hay was well made. Nitrate plot ready to cut ten days earlier than plot without Nitrate and the growth now is much heavier on the Nitrate plot."

WILLIAM NORMAN, TOLEDO, O.

Plot without Nitrate, 36 lbs. Plot with 62 lbs. "This is what I call dynamite soda."

E. P. NANCE, OAK LEVEL, KY.

Plot without Nitrate, 70 lbs. Plot with Nitrate, 104 lbs.

OLE O. HATLEDAL, BENSON, MINN.

Plot without Nitrate, 20 lbs. With Nitrate, 52 lbs.

"Plot with Nitrate now thick with grass again and will produce second crop of hay. Plot without Nitrate will not be worth cutting again."

DAVID H. EPPLEY, MUSKINGUM, O.

"Plot without Nitrate, 42½ lbs.; with Nitrate, 78 lbs."

"Am much pleased and only wish I had used it on my whole field."

HERBERT J. FRANCE, BLAIRSVILLE, PENNA.

Plot without Nitrate, 63 lbs.; with Nitrate, 118 lbs.

"Hay was thoroughly cured when weighed. Plot with Nitrate kept six or eight inches ahead all summer."

H. E. HAPPLE, COCOLAMUS, PENNA.

Plot without Nitrate, 28 lbs.; with Nitrate, 53 lbs. "Am well pleased with the result."

ALONZO J. BRYAN, HUNTERDON, N. J.

Plot without Nitrate, 31 lbs.; with Nitrate, 63½ lbs. "The Nitrate made wonderful results."

CHAS. J. GROTH, SPRINGVILLE, N. Y.

Plot without Nitrate, 78 lbs.; with Nitrate, 147 lbs. "Cut Nitrate plot twice."

E. B. STRONG, CAUMING, NOVA SCOTIA.

Plot without Nitrate, 68 lbs.; plot with Nitrate, 91 lbs. "Much pleased with results."

LEONARD D. SPICKNALL, LA BELLE, MO.

Plot without Nitrate, 44 lbs.; with Nitrate, 69 lbs. "I consider Nitrate of Soda a most valuable producer as hay seems softer and brighter from Nitrate plot than from the other."

WM. HENDERSON, ATHENS, PENNA.

Plot without Nitrate, 34 lbs.; with Nitrate, 60 lbs. "It was a fine test."

The average of these tests show an increase of 2,775 pounds of field cured hay per acre with the use of 100 pounds Nitrate of Soda. Bearing in mind the fact that Nitrate of Soda costs \$2.25 to \$2.75 per 100 pounds it is very evident that it pays to use it.

The Purpose of the Nitrate Propaganda.

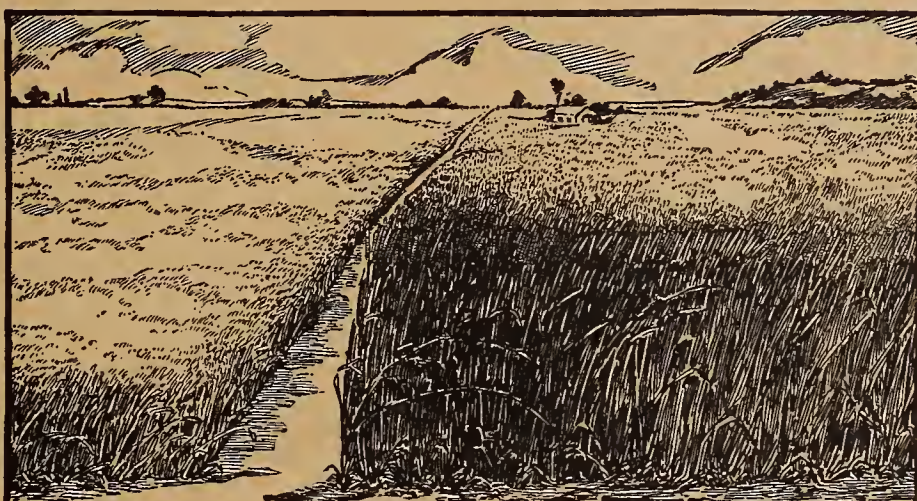
Free books, bulletins and all desired information are promptly forwarded to farmers interested. Most farmers of the United States have seen Nitrate of Soda advertisements and thousands have written in answer to them for free books.

No Nitrate is sold by the Nitrate Propaganda; it is maintained simply to put the facts clearly and accurately before the cultivators throughout the country and rapidly they are finding out that Nitrate of Soda is the cheapest and by far the most practical form of supplying their crops with Nitrogen. It is the only instantly available Nitrogenous Food for plants.

Free Information.

To a limited number of farmers who want to know, the Propaganda, in addition to bulletins from agricultural experiment stations, giving results of actual trials with Nitrate of Soda, is sending a handsomely illustrated book, "Food for Plants," containing over 230 pages of matter, which any farmer may understand, and which should be in the library of every farm in the United States.

Farmers who may not care to make any of the experiments, who would like to know the results that others have obtained or who desire any information whatever concerning Nitrate of Soda should write to William S. Myers, Director, John Street and 71 Nassau Street, New York



No Nitrate of Soda used

Giant Timothy Crops

Nitrate of Soda was used here

An average increase of 2775 pounds per acre of field-cured hay was shown in 11 actual tests where Nitrate of Soda was used. Tests were made from Nova Scotia to Missouri, and 100 pounds of

Nitrate of Soda

was used per acre, at a cost of \$2.55 to \$2.95 per 100 pounds. Compare increase with cost of this great fertilizer. Compare fields shown in above actual reproduced photograph. Nitrate of Soda is best and cheapest ammoniate with which to furnish Nitrogen to plants.

Test It for Yourself Entirely Free

Let us send sufficient Nitrate of Soda for you to try, asking only that you use according to our directions, and let us know the result. To the twenty-five farmers who get the best results, we offer, as a prize, Prof. Voorhees' most valuable book on fertilizers, their composition, and how to use for different crops. Handsomely bound, 327 pages. Apply at once for Nitrate of Soda as this offer is necessarily limited. "Food for Plants," a 254-page book of useful information, will be sent free to farmers while the present edition lasts, if paper is mentioned in which this advertisement is seen.

WILLIAM S. MYERS, Director, John Street and 71 Nassau, NEW YORK

look Nitrate, and thus endanger the chances of his crops which must have Nitrogen in a form the plants can use. The presence of Nitrate at the outset enables the plant to get its food when it needs it, and develops a vigorous growth of roots, leaves and stems, capable of withstanding the first scorching rays of the sun or sudden changes of the temperature, disease or the attacks of parasites.

Nitrate of Soda is of high value for EARLY CROPS, such as PEAS, CORN, BEETS, CABBAGE, etc., where rapid maturity is desirable. It is a special help to HAY, GRAIN, RYE, WHEAT, TIMOTHY, ORCHARD or other cereals or grasses, all of which are unable to obtain sufficient nitrogen from the soil just when they need it. It is a great specific in the production of SUGAR BEETS, POTATOES, COTTON and CANE.

Small fruits such as BLACKBERRIES, CURRANTS, RASPBERRIES and GOOSEBERRIES, which need a steady even growth are greatly benefited by Nitrate of Soda which can be furnished all ready for absorption when the plants require it.

recommend the use of Nitrate of Soda alone except at the rate of not more than 100 pounds to the acre, when it may be used without other fertilizers.

How to Learn About It.

The Nitrate mines in Chili are supervised by the government and authentic information is annually circulated about Nitrate of Soda among those who should profit by it. For this purpose the Nitrate of Soda Propaganda is maintained. Advertisements have been placed in the leading agricultural papers and offices established at John Street and 71 Nassau Street, New York, for giving out information in regard to actual tests made with Nitrate of Soda and as to its uses.

Results on Hay.

For three years samples of Nitrate of Soda have been sent to farmers to experiment on timothy. In each case two patches were marked out in the hay field, side by side—each about 20 feet square, about 1-100 of an acre. One received Nitrate of Soda, equivalent to 100 pounds per acre, the other had none. The fol-

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You'll Save in time—Save your horses and save much harder work for yourself, if you'll simply write a postal for our proposition on a Detroit Tongueless Disc Harrow today.

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No weight on the horses' necks—no bruises, galls or straining from sharp turns or rough, hilly ground.

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You hitch to eveners on the light front wheel truck. Then your horses pull straight ahead all the time, turning and all. No tongue to cause tipping.

It rolls smoothly everywhere you drive and is The Easiest for Horses and the Driver. We can't tell you the whole story here.

But we want you to know the whole truth about what a desirable harrow the Detroit Tongueless Disc is.

The best way for you to know is for you to try it free yourself for a month in your own fields.

We Pay the Freight

to your railroad station and even pay return freight if you don't find our Detroit Tongueless just exactly what we say it is. It won't cost any responsible party a cent to try it NOW, or at the time you want to begin your regular harrow work.

All you need to do is to say in your order when you want to test it. We'll ship promptly.

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BURNS BABY No Backache weighs only 41 lbs. EASILY CARRIED SAWED DOWN TREES

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Most popular poultry book ever published. 82 pages of practical, common-sense "Chicken" information in

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More than a million books distributed in a year. FREE! Mention this paper. **GEO. H. LEE CO.**, Omaha, Nebr.

MONTROSS METAL SHINGLES make the best roof for farm buildings. Fire-proof; cheap; long-lived. **MONTROSS CO.**, Camden, N. J.

COILED SPRING FENCE

Closely Woven. Can not Sag. Every wire and every twist is a brace to all other wires and twists full height of the fence. Horse-high, Bull-strong, Pig-tight. Every rod guaranteed.

30 DAYS FREE TRIAL

and sold direct to farmer, freight prepaid, at lowest factory price. Our Catalogue tells how Wire is made—how it is galvanized—why some is good and some is bad. Its brimful of fence facts. You should have this information. Write for it today. Its Free.

KITSELMAN BROS.,
Box 271 MUNCIE, INDIANA.

DON'T RUST FENCE

40 Carbon Spring Steel. Extra heavily galvanized. No Agents. 30 days' free trial. Farm and Poultry Fence, Catalogue No. 140. Also 40 Styles Lawn Fence, Catalogue C. Catalogue Free. Write for one or both.

THE WARD FENCE CO.
Box 401, MARION, INDIANA

CASH SALARY

and all expenses to men with big Remedies. Send for contract; we mean business and furnish best references. **G. H. HIGLER CO.**, X 400, Springfield, Ill.

ANGORA GOATS. Full blood from the original importation from Turkey. Pairs and trios for sale. **J. A. MOBERLEY**, Windsor, Ill.

Live Stock and Dairy

International Live Stock Exposition

THE International Live Stock Exposition of 1906 will go down in history with a record for several interesting features. First the exhibits have been incomparable.

The crowds in attendance, day and night, have exceeded those of other years, and they have to great extent come from long distances.

There has been a much larger attendance of young men, and their close attention and investigation of the live-stock exhibits shows that the boys have taken a great notion toward animal husbandry. There has also been a very large attendance of women, a great proportion of whom have examined the exhibits at close range and watched the events in the arena from early morning until late at night.

The exposition will also have a mark for the closeness in the matter of judging, that is, the judges in many instances practically were unable to say which of a bunch of cattle was entitled to the blue ribbon, so nearly alike did they compare in every feature. This shows the high degree of uniformity with which the farmer is producing a class of beef and butter animals. What is said of the cattle tribe is true of the other animals of the show in the matter of expert judging.

And most of the glory belongs to our own people. For weeks before the exposition opened it was the talk of the Middle West that King Edward VII. and Lord Rothschild would send from their stables a string of horses that would carry away American blue ribbons. But they failed utterly, and the first prizes were taken and are held by the breeders, mostly the farmers of our own land. The nearest that the mother country came to taking away any honors from her agricultural children was when a Canadian herdsman, Sir George Drummond, Beaconsfield, Quebec, who entered three pens of Southdowns, captured the championships. Sir Thomas Lipton was awarded first in the walk, trot and canter class, the victory being won by the horse "Erin Go Bragh."

Canada also got a trophy in the stock judging contest, the prize being won by the students of the Ontario Agricultural College at Guelph. The Iowa college boys took second, Ohio third, Kansas fourth, Michigan fifth, and Texas sixth.

Iowa got the first prize for judging horses, Texas second, Ohio third, Ontario fourth, Michigan fifth, and Kansas sixth. A. H. Hamer, of Ontario, got first for individual excellence, J. O. Olsen, of Kansas, second, and C. C. Nixon, Ontario, third.

There was an odd division of honors over the award for the fat steer, which was an eleven-months-old Hereford, peerless Wilton 39th's Defender. This calf was raised by H. J. Fluck, Goodnow, Ill., and sold to Frank Nave, of Attica, Indiana, but just before the exposition it was sold to the Ames Iowa Agricultural College. The honors were therefore divided between Illinois, Indiana, and Iowa but the latter got the prize. Since the award was made, \$1,000 cash has been offered for the steer.

Minnesota agricultural college got the first Aberdeen-Angus with Black Rock, two-year and under class. Ohio State college second, Iowa third. Kansas, Indiana, and Kentucky shared in some awards.

For two-year and under Shorthorns. Kansas Agricultural College, first; J. D. Douglas and Son, Flatrock, Indiana, got second, and Abram Renick, Winchester, Kentucky, third.

Judging car-loads of cattle attracted a great deal of attention from the beef producers of the Middle West. The sweepstakes for two-year-old Angus steers went to Funk Brothers, Bloomington, Illinois. One of the judges said the exhibit was the best he had ever seen. New York bid this beef away from Chicago by paying \$17 per hundredweight.

At the feeding cattle show J. E. B. Coleman, of Texas, won the championship for a load of Hereford calves. In the championship by ages the prize went to Andrew Norrell, of Walden, Colorado, who won on a carload of two-year-old Hereford feeders.

The exhibit of hogs was light compared with that of other animals. The fat hog weighed 600 pounds, and was too fat to walk. He had to be hauled to a slaughtering plant shortly after the award.

Five prizes for large Yorkshires went

to Thomas H. Canfield, Lake Park, Minnesota. Seven for the same breed of stock were awarded to Atkinson and Stone, Armstrong, Ill.

One of the events of the arena was the contest for prizes for teams of draft horses hooked to wagons. There were pairs and fours-in-hand. All of the entries were made by the big packing firms of Chicago, the first prize going to Schwarzschild & Sulzberger, second to Swift and Co, and third to the Union Stock Yard and Transit Co. The farmers seemed to be greatly attracted to this exhibit and wonderful showing of strong horses.

Taking all of the exhibits into consideration, the cattle tribe largely led all of the other animals, the horses being a close second, and sheep third. Illinois came to the exposition with forty-nine exhibits, big and little, of all of the leading breeds of beef and breeding cattle. Iowa was next with nineteen, Ohio seventeen, Indiana fifteen, Wisconsin, seven. Indiana sent the largest number of exhibits of horses, numbering seven lots. The championship for Clydesdale stallions was won by Graham Brothers, Claremont, Ontario. Graham, Renfew & Co, Bedford Park, Ontario, won the mare championship for Lanark Queen.

Perhaps never in the history of live stock exhibitions have the farmers and producers had a busier week. Besides looking over the exhibits of all kinds of stock and paying particular attention to the breeds on their choice, they have attended some twenty-eight meetings of one kind or another, or a part of them. One of the leading questions that a visitor would ask an attendant at an exhibition of cattle, was "How do you think your breed of cattle would do in my country?" This question brought out a great many different ideas in raising certain breeds in different sections of this country. Most of the answers came from experienced and observing men who study such questions as closely as a law student reads Blackstone. The men who are with the herds every day of their lives were the particular class of people who seemed to give the most practical information; the men who feed, water, comb and brush the sleek sides of the animals they were grooming for the show. Scores of these men worked while they talked, and a listener generally left the stall with information that was worth bearing in mind.

It has been a good-natured crowd, practically all made up of farm folks, save at the evening entertainments, when the city crowd turned out to see their country cousins. There were times when decisions in the arena were delayed for an hour because it was next to impossible to decide between two animals. On such occasions, the on-lookers were patient, and when at last the blue color was found approaching one or the other of the animals, there would come a spontaneous burst that fairly shook the roof. The onlookers away back from the ring did a deal of judging on their own hook, and from a distance they would venture estimates as to the weight of an animal and the outcome of the judges' work.

Illinois. J. L. GRAFF.

Tickle Grass Injures Lambs

A farmer near Monroe City, Missouri, had a nice lot of lambs in a good pasture where there was plenty of water. He congratulated himself on having such a splendid place for them in the fall of the year, but in spite of their auspicious surroundings the lambs began to decline in flesh and mope about. The farmer was at a loss to know the reason, as they did not have any disease among them. Finally, he sent for a veterinarian, and even he was powerless to diagnose the case for a time. But one of the lambs which was in the worst condition was killed and skinned. Then it was discovered that tickle grass had penetrated the lamb's body from every point. The inside of the pelt was rough as bristles. The grass had even penetrated into the muscles an inch or more. In other instances it had entered the cavities of the lamb's body. All of the flock was more or less afflicted by the tickle grass, which has a beard resembling that on wheat and rye, and when once fastened to the wool works itself into the body with every move of the lamb. It will be well for farmers who put their lambs on fall pasture to take precaution that the field is rid of tickle grass.

Missouri. W. D. NEALE.

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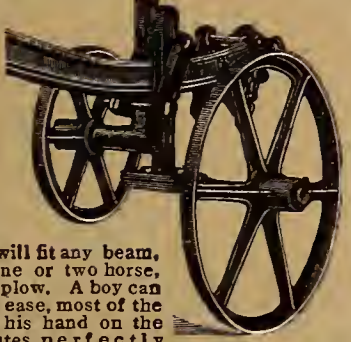
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Live Stock and Dairy

Remedies for Stock Diseases

The following are practical remedies for diseases common among farm stock.

For diarrhea in calves, the first remedy should be a dose of linseed oil, or castor oil, after which some stimulant, such as brandy or port wine, should be given. Another thing found good, is raw eggs, ground ginger or peppermint, a few ounces of starch (cold), or a spoonful of chalk. These should be given in the milk, and it would be well to have it boiled. The drug recommended for this complaint is half a teaspoonful of laudanum.

In the fall, what is known as hoose, or husk, is commonly found to attack young cattle. The principal symptom is coughing. This is caused by little worms getting in the throats of the animals, gathering in the windpipe, and hence the coughing. Cattle thus affected are generally found on damp lowlands. Such lands should be well salted or limed, and thoroughly drained and reclaimed, where it is possible. Such cattle, by their coughing up these little worms on the grass, help to spread the disease. The best remedy to give the cattle thus affected is, first to dose them with turpentine and linseed oil. Fumigation can be very effectually carried out by collecting all the diseased calves into a shed, which should be light, and then get a quantity of burning coals into the shed and throw some flowers of sulphur on the coals, thus raising strong fumes of the sulphur. Continue to fumigate until the calves cough strongly.

Very often we find worms in horses, and when such are present, the animal becomes very emaciated. A tonic or condition powder is good. For instance, half a dram of sulphate of iron, two drams of powdered gentian, to be given fasting every morning for a week. Common salt is also good, and it would be well, too, for rock salt to be placed about. Cattle should never be without salt. Liming and salting are indispensable to farming. Such obviates the presence of fluke, and these little wretched mites, the red worms.

Dry murrain is a form of indigestion, and is attributable to several causes, such as dry feeding, dry grass in summer, over-driving, red water, etc. We find this to occur often twice a year, in spring and in fall. The following is recommended: One pound of Epsom salts, one half pound of common salt, one ounce

Care of Farm Horses

Horses are the most valuable animals we have on the farm. There is little work on the farm in which their assistance is not required, and we cannot do a better thing than to give them our very best care at all times. It costs no more in the long run to keep horses in a healthy, thriving condition than it does to neglect them. The farmer who neglects to give his horses the care and attention they justly deserve is very likely to be neglectful in other farm duties.

During winter many farmers permit their horses to run down in flesh; this could easily be prevented by giving them the proper care and attention. I have known some farmers to leave their horses in the barn for days at a time without exercise, allowing them water not more than once a day, and feeding them at irregular intervals on full feeds of grain, giving no hay at all. Now, while grain is the main feed for horses, if they are fed exclusively on it without the addition of some kind of hay, and without sufficient exercise, they are very apt to "burn out." Their digestion is likely to become impaired and they will become emaciated. In fact, the entire system will become weakened, and they will be unable to perform fast work or violent exertion as they should.

It is very important that we allow our horses the run of a pasture while not at work, whether there is available feed in it or not. By so doing they are given a chance to obtain sufficient exercise, and by feeding them a limited amount of good, clean hay in conjunction with a fair maintenance ration of grain, they will be kept in an excellent condition.

Those required to work steadily must have three meals regularly each day if they are to be kept in good working order. Their evening meal should be a full meal, as they are then at rest and able to digest their food at leisure. At least half an hour should elapse after they are put in the stable before they are given their evening meal. It is important that we practise regularity in feeding, as the horse requires food at the same time each day, and if we disappoint him by a failure to feed him at the required time he is worried thereby. Thus the result is likely to be a loss of some kind. Too much food at a meal or too long abstinence between meals, followed by voracious feeding, is very



FIRST PRIZE SADDLE HORSES

of ginger, one ounce of jalap, one pound of molasses and one quart of water.

In case of red water, the following is a good remedy. Give one dram of carbolic acid, one quart of linseed oil. Milk fever very often attacks cows in high condition. The common symptoms are stamping the feet on the ground, and sometimes convulsions set in. The beast lies down; and perhaps remains down. As we know the disease is in the udder, the medicine should be administered through the teat into the udder by means of a syringe. The best remedy is to apply a little iodide of potassium, to be squirted into the udder. When the cow has recovered give her physic composed as follows: One pound of Epsom salts, one pound of molasses, one ounce of ginger and one quart of water in which some malt has been boiled. This should be given about five days before calving, and, as a cow goes forty weeks and five days in calf, the dose may safely be given after the forty weeks have passed. **W. R. GILBERT.**

apt to bring on colic and indigestion. Good, pure water is essential, and should be given before feeding.

The horse prefers salt where he can get at it at will, rather than have it forced upon him in his feed at irregular intervals. Some make a mistake in putting salt in the horse's trough each time they feed him. The best way to provide salt for the horse, and other stock as well, is to place a small box for that purpose near the feed trough.

It is very important that we freely use the brush and curry-comb, and never neglect to give the horse's legs and feet good care and attention. Even careful grooming of the extremities will amount to little if horses are compelled to stand in filthy stables. We must remember that clean stable floors are essential to sound feet and limbs on a horse; and what is the animal good for without these? There are very few horses that have sufficient care given to their legs and feet.

Illinois.

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Poultry Raising

Sitters and Hatches

DURING very cold weather many hatches fail because of the lack of warmth in the nests, the interference of other hens with the sitters, and from exposure of the eggs to a temperature below freezing. It will be an advantage, if two hens begin sitting about the same time, to give only ten eggs instead of thirteen to each. They will, probably, bring off more chicks than from a larger number of eggs. During the cold season all the heat to the eggs must come from the body of the hen, and the larger the number of eggs the greater her task of applying warmth. Sometimes, if the weather is very cold, and the hen comes off to feed, she goes back to her nest to settle her body on eggs so cold as to torture her, and it is quite an affliction at times. If she is compelled to keep a large number of eggs warm she may fail, and as each egg is exposed during a portion of the period of incubation, it may happen that all of them will be injured, but with a smaller number she may be able to keep them at an even and somewhat regular temperature, bringing off a fair proportion of chicks.

Feeding Oats

Oats provide an excellent addition to the list of grains, the benefits derived depending upon their quality. Only the best and heaviest oats should be used for the hens. Those who have tried the plan claim that good results are derived when oats and wheat are soaked for a few days, then removed from the water, kept in a warm place, and a damp cloth placed over the mess, so as to cause the grains to sprout. There is no advantage in soaking grain except to have it sprout. This affords a variety, as the sprouted grains undergo a chemical change of composition. Another excellent method of sprouting the grain is to mix it with earth in a box, pour boiling water over it, keep the box in a dark, warm place, occasionally adding a little warm water; but the mass must not be made too wet. It may be fed to the fowls by throwing a shovelful to them to pick over.

The Breeds that Pay

The breeds that pay are those that are adapted to the conditions existing on each particular farm. Some farmers are ready to proclaim in favor of their favorite breeds, but each breed has its hosts of admirers. If there is to be an addition to the revenue it must be done with birds that will give a return for the food used. The ordinary barnyard fowl is not suitable for enterprising farmers. It does not pay for itself, and is an expense. As some farmers are trying to get on a more solid foundation, the best way to recuperate, if the flocks are to assist, is to begin with something that will be serviceable. The common fowls seldom prove remunerative, and the best poultry are the pure breeds, as they will give more eggs and meat than can be obtained from fowls that are of all kinds and colors. It is known that with live stock (including cattle, swine, horses, sheep and poultry), the largest returns come from those individuals which are known to be well bred, and which represent families or strains that have demonstrated their superiority.

Kerosene Emulsion

The efficiency of kerosene emulsion depends on how it is made. It is excellent at this season for destroying lice in poultry-houses. The most important part is the agitation of the materials. Simply stirring the mixture will not answer. Violent agitation by pumping the liquid back into itself is necessary. Use soft water, and avoid water containing lime; also use plenty of soap. An excellent method is to shave half a pound of soap, and add to it a gallon of boiling water. Let the water boil until the soap is dissolved, and then remove the vessel from the fire. Next add two gallons of kerosene and a gill of crude carbolic acid while the water is hot, and briskly agitate until the result is a substance having the appearance of rich cream. It requires about ten min-

utes to agitate the mixture, as no free kerosene should be noticed. When cold, add 20 gallons of soft water, and spray with a nozzle. The carbolic acid is not included in the usual formula, but it will be found of advantage. Use the crude acid (not the refined), which is a cheap substance. Kerosene and carbolic acid will not mix with water, but both substances form an emulsion with strong soapsuds.

Quality in Remedies

Insect powder is frequently recommended for destroying lice, and it is a valuable aid to poultrymen when fresh, but when allowed to get stale it does not do the work. Insect powder that has been on hand for several months may not now be efficient. The fresh article should be dusted in all the corners, and sometimes a little under the wings of the older birds will do much good. However, before it is used in the houses, they should be thoroughly renovated and whitewashed, if possible. It is always in order to renovate a chicken-house and whitewash it, and then thoroughly dust with insect powder every portion of the house, including the nests. Apply the powder after the house is dry, but before buying be sure that your dealer supplies you with the fresh article.

Millet Seed

Millet seed is useful food for hens, as it is not only nourishing, but induces scratching, the small size of the seeds compelling the hens to search for them. They are usually scattered over a wide surface, and are never fed in troughs. Farmers can easily grow their own seed, and by feeding it to the hens a good home market is ready, as the use of such seed for that purpose increases the number of eggs and enables the farmer to get a good price for his seed by keeping a large number of hens. The yield is about twenty bushels per acre, and the crop can be grown on nearly all kinds of soil. Millet is considered one of the best crops for poultrymen. One may thresh or flail out the seed if preferred, but such practice is laborious. The best plan is to allow the seeds to thoroughly ripen and become hard and dry before cutting the millet. It is stored under cover and an armful placed on the floor of the poultry-house. The fowls will not use it as litter to scratch in, but will find every seed. The seeds are highly relished and served as a variety. Hungarian grass or the ordinary common millet will answer.

The Early Pullets

What is meant by early pullets is the hatching of chicks as soon as it can be done, so as to allow the pullets the spring months for growth, as well as to have them mature before October or November of the same year. January is early enough, but such breeds as Cochins, Brahmas, Langshans, Wyandottes, and Plymouth Rocks are the breeds that should be selected for early hatching, as they are large in size, and do not reach maturity as soon as the pullets of some other breeds. Usually the rule is to put eggs under hens in January, and as it requires three weeks for eggs to hatch, the chicks will come out about the first of February.

One of the objections to hatching Brahmas, Wyandottes, Plymouth Rocks, or Langshans in February is that they may begin to molt in the late fall, which sometimes happens, but late molting is the exception in such cases. March is the best month in the year for hatching early pullets of the large breeds, as the spring weather conditions are then favorable in some sections, and they need not be kept in confinement very long. April is an excellent month for hatching pullets of the smaller breeds, while May is sufficiently late for any kind of fowls if pullets are to be retained for service as layers the succeeding year, though it is better to hatch all pullets not later than April, owing to the difficulties arising from lice during the warm summer months.

P. H. Jacobs.

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If the Brooder is ordered with the Incubator the price of both is only \$11.50 delivered anywhere in U.S. east of the Rockies. The price of the Incubator delivered west of the Rockies is \$9.90 and the incubator and Brooder together \$14.75.
These prices are delivered at your railroad station, not f.o.b. factory. F.o.b. factory means that you may have to pay cartage from the factory to your station.
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If you want a larger machine write for our 80-page "Victor Book." Two-thirds of the space is devoted to giving information about the poultry business. The rest tells the truth about Victor Incubators and Brooders. We start with the egg and give pointers that mean increased profits right through to the heavy fowls ready for market. How to make hens lay when eggs are scarce. How to get early spring chickens on the market in time to get best prices. Practical hints that may mean money whether an old hen or an incubator does the hatching.
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PARIS is the great pleasure capital of the world. It thrives on its reputation for entertainment, even as Berlin flourishes on account of its musical atmosphere, or Rome for its treasures of art. Everybody sees the sights at least once when they go to gay "Paree." One might as well go to Niagara without looking at the falls, or to Washington without seeing the White House, as to visit the world's great capital of folly without seeing some of its night life.

Pleasure seekers go to Paris because the French people are famed for knowing how to amuse themselves, and for their willingness to provide entertainment for others. Generation after generation of Parisians have vied with each other in making a beautiful city. Instead of allowing politicians to parcel out the places in the administration as a matter of patronage, offices are given to the most skilled graduates from the technical schools, who try to leave a name for themselves by the work they do. And Paris fairly shines as a result of their efforts. On every hand you will see flowers, fountains, ornamental bridges, towers and gardens. Even the trees along the streets are guarded as carefully and cared for as jealously as if they were in a millionaire's garden.

The ordinary, everyday Parisian crowd has all the color and perfume and variety of a masquerade. As you look at the people going in and out of the theaters, cafes and shops, and jostling each other on the walks, it seems that it might be the ensemble of a great play. The surroundings are so beautiful that it requires no great stretch of the imagination to believe that you are beholding a scene from a gigantic extravaganza, the stage set to represent an idyllic summer garden, peopled with the swarming hosts of folly. It would seem that the very stones of the pavements would be worn out from the endless tramp and shuffle of the throngs.

Last year more than fifty thousand Americans visited Paris, and they were welcome guests, because our people spend more money than those of any other nationality. The particulars of some of the expensive banquets that are given are most interesting. For instance, when the Spanish Infanta Eulala gave a dinner at a fashionable hotel for fourteen Americans, including Pierpont Morgan, the bill amounted to \$6,000. It was in mid-winter, and asparagus cost eight dollars a plate, and strawberries ten dollars a portion. The fame of the French cook has done much to advertise Paris and make it a mecca for pleasure seekers.

The Parisians are organized to take care of their guests, no matter where they are from. When I was in Paris the London County Council came there in a body to promote the entente cordiale between England and France, and every hour of their time was arranged for. Every detail that would add to their comfort or safeguard their well-being was looked after. These precautions went so far that the street in front of the hotel where they were stopping, as well as the lobby of the building, were graveled so there should be no accidents from entering or leaving their carriages. This is the way the French authorities aim to look after all notable outsiders who come to their country for pleasure.

One of the greatest attractions in France is the fine system of roads and the possibilities for automobiling. The French people have always been good road builders, and they were quick to realize the fact that a smooth, even road-bed would greatly facilitate the operations of the automobile and preserve it from damage. Consequently, they have elaborated upon the excellent system of roads inaugurated by Napoleon. Instead of dividing their country into

France, the Mecca for Pleasure Seekers

By Frederic J. Haskin

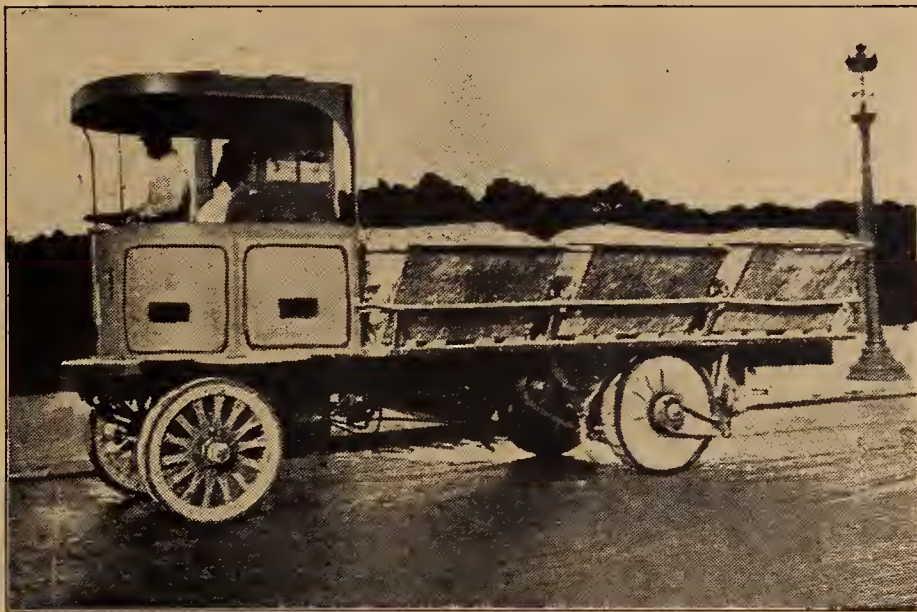
forty-five or fifty independent states, each with a separate law like ours, a national organization was perfected, and a common law made for all.

An automobilist who desired to traverse the United States, if our roads were good enough to make a trip possible, would have to familiarize himself with the various laws of all the states and territories, and his machine would be literally plastered with the numbers of the various licenses he would have to obtain.

In France the Association Generale Automobile, and the Automobile Club of France, have smoothed the way for

other. For instance, if the authorities in a certain locality are disposed to be discriminating, or the merchants exorbitant in their charges for supplies, the fact is made known to other automobilists by scattering colored confetti along the roadside. A regular code has been formed which no one but the motor tourist can understand.

It is estimated that every pleasant day during the summer there are at least forty thousand visiting automobilists moving across France in one direction or another. It is claimed that at least one third of these are Americans who would not take their outing



AN AUTOMOBILE DRAY

tourists by authorizing a system of signal boards, which have been erected along every road in the entire country. These "touring directions" include information about the character of the roads, and the directions to take in order to reach certain destinations.

The location of hills is indicated in advance so that the chauffeur may be on the lookout for them. The admirable foresight of the French people is shown by the fact that their code of signals for automobilists is so arranged that they may be readily understood by even those who are unfamiliar with the French language.

It is a well-known fact that tramps make a practise of putting chalk marks on gate posts where they encounter savage dogs, or receive unfriendly treatment, and the tourists who travel through France in automobiles have devised a similar system to post each

among a people whose language they cannot speak, were it not for the fact that they have to go abroad for roads because there are so few good ones at home.

The advantage Europeans have over Americans in the matter of roads may be shown by the statement that from Madrid, in latitude forty, to Norway, in latitude sixty-four, a distance of twenty-six hundred miles, there is an unbroken stretch of fine highways, while in our country it would be extremely difficult to find a hundred miles of really first-class road in one continuous course.

The advantage that France reaps from this annual invasion of pleasure seekers is almost beyond calculation. In one way or another the automobile industry claims the whole time of hundreds of thousands of French people. Incidentally it helps those em-

ployed in the manufacture of the basic materials used in the construction of automobiles, such as artisans in brass, steel, copper, leather, wood and aluminum. The benefits extend further to the hotels, restaurants, cafes, shops, theaters, merchants, dressmakers, souvenir dealers, and all the hosts of tradesmen who profit by the presence of travelers.

The French people were not only the first to realize the possibilities of the automobile as a pleasure vehicle, but were the pioneers in applying it to practical uses. The visitor to Paris is simply amazed by the evidences of progress which he beholds in this respect. He sees the postmen whizzing by in auto mail wagons, auto street sprinklers at work laying the dust, immense auto drays hauling dirt from excavations and removing garbage, as well as auto milk wagons and auto vegetable vans spinning in from distances in the country which would not be accessible for any other vehicle.

The saving in time between city and country works both ways. Auto delivery wagons rush newspapers and packages of goods into remote sections that were formerly cut off from the metropolis on account of their distances. The street-cars and railways tap the surrounding country by straight lines, but the automobile works the territory thoroughly. The doctor can reach his country patients in a jiffy, the business man can go miles to join his family on their outing, and the country resident can finish his daily work and go to the city for his evening's entertainment.

There is no doubt that the automobile as a utility vehicle is destined to revolutionize commerce. The practical power wagon will work almost as great a revolution in transportation as the railroads. Although a model type has not yet been perfected, great strides are being made toward that end. That it will eventually supplant the horse in local commerce, even as the railroad and the trolley car have eliminated him as an agent in long distance transportation, there can be no doubt.

The reason for this is that a motor-driven wagon conveys a larger load a greater distance than a horse can pull it; it is available for work at all hours, and it is not subject to fatigue. It requires no food, no lodging, and can be repaired after any accident aside from one amounting to total destruction. Other arguments in its favor are that it requires less room in the road, that it can be moved backward as well as forward, and that it neither contracts nor distributes disease.

The great reward the French people have reaped for being the pioneers in road building should be a lesson to the whole world, and particularly to the United States. Serviceable highways that can be traversed during all seasons are the greatest boon any civilization can enjoy. They benefit every profession and every class of people. There can be no greater mistake than that which prevails in the minds of many people to the effect that good roads are a benefit to country people only.

It is imperative that there be constant communication between town and country, else city people suffer from the increase in the price of supplies which they must inevitably receive from the rural districts. The fact that farmers must rush their produce to market during a certain period each year when the roads are passable, or else not get them there at all, tends to congest the market and force low prices which benefit neither producer nor consumer.

You are no doubt very busy just now, but we trust that you will take time to read the advertisements in FARM AND FIRESIDE this issue. There is such a big variety of good things that you are sure to find something you need.



PARIS IS BEAUTIFUL

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There is big money in poultry raising when you are working along right lines; when you have efficient hatchers and brooders that will rear the chicks; when you are guided by the advice of one who knows, and is most successful in his own poultry work.

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Send two dimes for a copy of my book "Eggs, Broilers and Roasters." It gives the cost of production in all branches of the poultry business. It gives the market quotations week by week averaged for three years. It shows when a chick hatched any week in the year could be marketed as a broiler or a roasting chicken, and the profit it would make. It also tells of the profits of egg production and how best to secure them. Write me today.

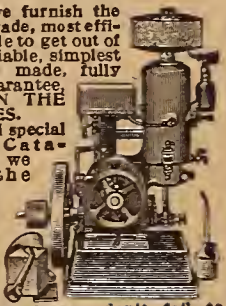
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The Grange

The Grange Position on Limiting Fortunes

FOLLOWING are the resolutions passed by National Grange concerning inheritance and income taxes and the limiting of fortunes:

"Resolved, That we favor the enactment of state and national laws restricting the amount of land that may be owned or leased by a single individual or corporation, and that the taxing power be used to restrict and break up the holding of excessively large quantities of land.

"Resolved, That we favor the placing of a progressive tax upon all fortunes beyond a certain amount, either given in life, or devised, or bequeathed upon death to any individual—a tax so framed as to put it out of the power of the owner of one of these enormous fortunes to hand on more than a certain amount to any one individual.

"Resolved, That under a wise and far-seeing interpretation of the interstate commerce clause of the constitution, the national government should have complete power to deal with all of this wealth which in any way goes into the commerce between the states.

"Resolved, That the National Grange favors and urges congress to abolish the franking and penalty privileges, and require all mail matter to be prepaid at the regular postage rates."

The fortieth annual session of the Annual Grange adjourned at noon to-day.

Report on Taxation

The committee on taxation, O. Gardner of Maine, Chairman, submitted an extended report, concluding with recommendations that whenever any of our manufacturers are using the tariff laws to enable them to sell their surplus products in foreign markets at a less price than they are sold at home, thereby making our own people pay more for their goods by reason of competition being prohibited, we demand the revision of those laws along the lines that will prevent such abuses. Under present conditions it is impossible to reach certain classes of property for taxable purposes, and under the laws to-day hundreds of millions of dollars' worth of property pay virtually no tax at all; therefore, if it cannot be done otherwise, we favor changing the constitution of the United States in order that a graduated income tax law may be enacted, which we believe to be one of the most just and equitable of laws, as it enables a tax to be placed upon property that entirely escapes at the present time.

We would advocate that all laws for the assessment of taxes in all the states of the Union be made uniform, in so far as the manner of assessment and the basis of value is concerned. It would remove the practice of competition among states in securing manufactories by reason of exemptions so freely made under present conditions.

Property is property, and we believe everything that is classed as property should be taxed as such; therefore, we favor a collateral inheritance tax law.

Denatured Alcohol

Suspicion is the hobgoblin of little minds; caution, the mark of wisdom. An article recently appeared portraying in glowing colors how the people of the country had been "worked" by the Standard Oil Company in securing tax free alcohol. It professed to have inside information that entitled it to oracular utterance. This appealed to the suspicious and ignorant and to that class of people who can pass no woodpile without looking for the "nigger" concealed within. But to the man who walks erect, who is a shrewd business man, it was simply the effusion of a disordered mind. The facts of the case are the United States has an excellent denatured alcohol law. As to the regulations it is only fair to give them a trial before condemning them or casting suspicion on them. Few are well enough informed to speak authoritatively upon the subject and to rouse suspicion in the minds of the public to gain a cheap notoriety is scarce worth the piper.

The Grange secured the tax-free alcohol law and the Grange should profit by it. It was secured that farmers and the people generally might have a safe, cheap, effective fuel for light and heat. Someone will secure the benefits, and it will be those who go after them. Automobilers, manufacturers, aggressive business men and women will be the first because they go after them first. The benefits belong to those who go after them. No

class of people have more at stake, have done more to secure this great benefit, or would profit more by the use of alcohol for light and fuel than the farmers. Write to manufacturers for lamps, stoves, engines, whatever you need in the light and fuel line. If you see no advertisements, then write to a paper which will guarantee its advertising to get manufacturers to bring their wares before the public that really wants them. Advertising is a science and is calculated on a strict business basis. Manufacturers will first place their goods before the class of people who will the soonest buy. Splendid articles are now manufactured. Flatirons which do beautiful work without the necessity of constantly changing irons, furnished with a steady heat and costing less than gasoline to keep heated, lamps for halls, homes, stores; lamps for every possible place that yield a beautiful, steady, clear white light, and that without danger of explosion, without soot or dust. In a recent exhibit I saw dozens of articles at moderate cost that would appeal to the housewife. Why were they not advertised in farm papers? Because, as a rule, the farmers do not buy as soon as townpeople. The next step is to get after advertisers, and the way to do is through the agricultural press. Write to farm papers that carry only safe matter, then write the advertisers for catalogues. Try some of the wares, and see if you are not abundantly paid for all the time and expense. When once you see the wonderful possibilities of alcohol as a fuel and light producer you too, will become an enthusiast and wonder that you so long sat in darkness.

Parcels Post

Do you really want a parcels post? Do you really want cheap and rapid conveyance of articles? Do you really desire opportunity to buy things and have them reach you without costing a dozen times what it should to carry them? Do you really care to save to your own pockets the millions of dollars that the express companies annually pay in dividends? Do you really care to look after your own interests, and have the tribute you now pay to transportation companies to use for the good of your own family and community? Do you really desire to take an occasional trip instead of furnishing the means for extended foreign tours and monkey dinners upon which millions of dollars are squandered? Do you really care for a more equitable distribution of the world's wealth?

If you do then you will do your part in seeking a parcels post. If you are really interested, you will write to your senators and the member of congress from your district, at Washington, and urge upon them the speedy passage of a parcels-post law. You will also write to the member of the legislature of your own state who represents your district, and tell him that inasmuch as the senators owe their election to the state legislature you will expect them to energize the senators into action for a parcels post. Then you will circulate petitions in your community and secure the signatures of the people of influence. Send these direct to the members of the House and Senate of your own state. They will know the name of every voter, his worth and position in his community and the amount of influence he will likely wield in an election. Be careful of these petitions to your state members of legislature. Quality not quantity counts. If they see thereon the names of the influential people they will not be long in getting word to Washington that their constituency are aroused and that speedy and favorable action must be taken. If you want a long petition with all names, regardless of position, let that go to Washington where there will not be so careful a scrutiny. But make your petition to the state people one of power. It's easy enough to energize a community, but it takes enthusiasm and some sacrifice of time. It's worth while. It's easy enough to secure the passage of any just measure if the people really want it bad enough to rouse from their "iron-lidded sleep."

If you don't know the name of the congressman from your district, ask your postmaster or write this paper. A parcels-post law can be secured if earnest, aggressive and concerted action is taken. Do you want it? The measure of your desire will measure your effort.

Interesting Grange Statistics

Maine has 408 granges, 53,336 members; 355 of the granges own their own halls. These halls with furnishings are worth

\$887,000. Coöperative purchases amount to above \$375,000 this year. Three patrons' fire insurance companies represent a business of \$25,000,000, at a risk of one fourth of one per cent. The membership represents one twelfth of the population. The State Grange erected and maintains a cottage for homeless girls at Good Will Farm. O. Gardner, the Master, has served in that capacity nine years, and has brought Maine to the front in grange work.

G. W. F. Gaunt, Lecturer of National Grange, Master of New Jersey State Grange, reports a membership of 12,000, distributed among 106 granges. Patrons do a business of \$14,000,000 in fire insurance.

Pennsylvania has organized and re-organized 55 new granges during the past year, and paid \$1,608.53 to the National Grange treasury. The state has five grange banks and expects to add one or more trust companies. All the legislation asked for has been incorporated in the platforms of the leading political parties, so the state is safe regardless of which party is elected. The state master, Hon. W. F. Hill, has repeatedly declined the nomination for governor, feeling he can do more for agriculture at the head of an active aggressive membership of such large proportions, than as governor of the state.

Massachusetts reports a membership of 21,221. Eleven granges have been added to the list this year. The state master, C. D. Richardson, has been appointed by the governor as a member of the commission to investigate the subject of industrial education in the rural schools. The patrons secure benefits from the Grange Fire Insurance Corporation.

Michigan has a membership of about 45,000, distributed among 450 granges. The Grange has become so important that great care must be exercised in extending invitations. Much business done in a coöperative way. Fire insurance is a prominent feature. The master, Hon. Geo. B. Horton, has been connected with the Grange for twenty-two years, and in that time has missed but six meetings.

The Grange in Ohio has a membership of about 45,000. Fire insurance is largely patronized. The membership is active and united on public questions. It does not need the initiative, because it can secure the introduction of any bill desired. It has never sought a single item of legislation that it has not secured. It favors referendum and direct recall of recalcitrant officials. The State Grange is taking a prominent part in taxation propositions. The master, Hon. F. A. Derthick, in his six years' administration, has doubled the amount in the State Grange treasury, while extending vigorously the work of the order and spending more funds in new work. The Home Reading Course is one of the prominent features of grange work. Its entire cost for two years was \$778.74; 44,000 pieces of literature have been distributed, 68 classes organized in 24 counties, 508 books sold. The cost covers the entire period of two years. It is low, because those having it in charge have done the work almost entirely without cost to the State Grange.

The New York Grange has a membership of 82,000. It wields a large influence in state matters. It maintains four scholarships at Cornell University. For its loyal support the Board of Trustees voted to allow the State Grange to select one of its members for trustee. Its Master, Geo. B. Fuller, is an aggressive leader with high ideals and courage to express them. The Empire State Grange is in a thoroughly prosperous condition.

The National Grange placed \$10,000 in the hands of National Master Bachelder for extension work.

Mrs. Eva S. McDowell, the loved and efficient treasurer of the order, the wife of Francis M. McDowell, one of the founders of the Grange, reports \$94,671.94 in the National Grange treasury.

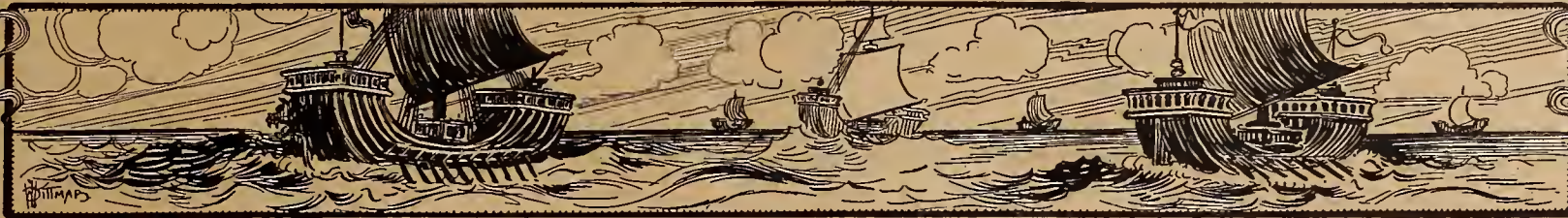
Two hundred and forty-nine granges were organized last year and sixty-six re-organized.

A. T. Buxton, Master of the Oregon State Grange, has under his jurisdiction 101 granges, all in a thriving condition. The lecturer of the State Grange is connected with the State Agricultural College, and the Master of the State Grange is, by virtue of his office, one of the regents. Thus are the educational interests and the farmer's cemented. Mr. and Mrs. Buxton own a fine farm of 280 acres in the rich Willamette Valley.

Mary E. Lee.

The Thrall

A Story of the Vikings



THE proud and beautiful Lady Gudruna, with her waiting-maids, had hastened down to the beach upon the first news being borne to her of the sighting of the ships.

She stood a little in advance of her thralls, her long golden hair closely braided about her shapely head, her hand shading her eyes as she gazed out on the blue waters. At her feet the golden sand lay like a carpet, while on either side towered the giant cliffs crowned with their bristling pines.

Far out on the ocean many sails were in sight; big, square sails that belled out with the favoring breeze and drove forward the great, black hulls under them in long, sweeping plunges, while from the high, fantastically carved prows a mass of snowy foam smothered away on either side and eddied against the bulwarks, where it was caught up by the long sweeps of the rowers, and sent churning astern.

It was the home coming of Yarl Angantyr, the guardian of the Lady Gudruna, after an absence of five months, and the beach was alive with his womenfolk, the old men and the boys and thralls. They had come down from the great castle to welcome him. They stood a little way back of the Lady Gudruna, all expectantly gazing seaward.

"There be ten, where went out but five," said the lady presently to her nearest maid. "Great Thor hath been kind to the Yarl."

"And they be heavy with booty, my mistress. See how the great dragon on the Yarl's ship dips after each billow—and—Edric's, that follows, the 'Raven,' it be well-nigh swamped with its very weight; truly the gods have fought for the master."

The fleet was well in the bay by this time, and the big single sail of the leading ship was being lowered. All the rest followed suit, and the toilers at the sweeps gently urged the Earl's ship forward until her keel grated upon the gravel. Many willing hands hauled her up, and the Viking king leaped to the shore.

The air was rent with the shouts of: "Welcome, welcome, Angantyr! Welcome, Yarl Angantyr!" as men and women pressed forward to greet the voyagers.

"Thrice welcome art thou to Disarholm, Yarl Angantyr!" cried Gudruna, courtesying low to the belted Earl, who caught the girl in his great, strong arms and embraced her.

"How goes it; has all gone well?" queried the Viking.

"All is well with us, my lord; and with thee! Has Thor prospered thee?"

"Aye, my girl, right well has he that. There be a chest on the Dragon that be loaded with trinkets for thee, and one armlet, that I took from a Frankish noble, alone be worth a ship's making; it is for thee, Gudruna. But old Helge—he is slain; slain at the taking of you vessel. He and five others were cut down by a Saxon knave, who was captured. By the Black Raven of Odin! he shall pay for it, though; I have but spared him thus far that I might bring him to Disarholm and slay him before the great Thor—Hello, hold on a bit! Bring hither the Saxon captive," he cried, addressing some of the crew, who were leading away a remarkably tall and stalwart-looking young man.

The prisoner was clad only in a short, sleeveless tunic, and his arms were lashed tightly behind his back.

"Here, thou coward, come hither," and one of the men jerked the rope with which he was leading the captive. His effort was futile, for his charge was strong as a bull; he but stopped and glared at his custodian.

"Nay, Sigvald, coward is he not, what ere else he be," said the Earl. "But bring him hither some of you."

Three or four of the sailors seized the young man and hustled him toward the Viking lord. He stood helpless but defiant before Angantyr and his ward, his mammoth form towering a half head higher

than even the Earl's. Gudruna looked curiously at him. He was a splendid specimen of manhood; a giant, even among that race of giants.

"What will ye do with him?" she questioned.

"Slay him on the altar of the great Thor," said the Earl, shortly.

Again the girl gazed at the prisoner, and for a moment he raised his head, which he had kept sullenly lowered, and his eyes met hers. For a brief second they looked at each other, then he dropped his head again.

"Nay, uncle, slay him not; give him to me!" cried the girl impetuously.

"Not I so much as I know," snapped the Viking. "What wouldst thou do with a man thrall, girl? Hast not enough waiting wenches already?"

"Enough and to spare, Yarl, but 'tis a man slave I need. The girls be not often strong enough for some of the heavier work; this fellow is an ox, and can work well in the carrying of water and the hewing and bringing in of the pines."

"That is pretty certain, but I have sworn to slay him for the killing of old Helge."

"Forego thy oath," pleaded the girl.

A few minutes later he was conducted into her presence. He was still fettered, and as an extra precaution, he had been hobbled with a short rope. With his guards on either side of him, he shuffled into her chamber, and stood defiantly, almost sullenly before her.

If he knew that she had saved his life, he gave no sign of thanks; his face was as stolid as the Sphinx's. From her couch, the Lady Gudruna gazed at him with interest. She was mildly, slightly interested in him; she admitted that to herself.

"How now, thrall, art willing to serve me, an' I spare thy life?" she questioned. The Saxon gave not a sign that he heard.

"He knows not our tongue, my lady," suggested the maid.

"Dullard that I am; I forgot, but see, my Hilda, if he is to be of service to me, he must be taught. Withdraw," she commanded the men, "leave the prisoner here a season."

The Vikings, half unwilling, hesitated a moment.

"Cowards!" ejaculated the Lady Gudruna, contemptuously, "What fear ye? Can he harm me; is he not bound?" and

"Yes, my mistress," repeated the slave. "See to it, then, Hilda, that to-morrow in the forenoon the armorer affixes a thrall's collar on him, and let him then be brought before me again."

The short north summer drew to a close, and already it felt pleasant to stand before the blazing pine logs. The Saxon, under the patient tuition of his mistress, had made substantial progress in the acquiring of the Norse language, and she, in her turn, had become well versed in his own rough Saxon tongue.

"What is thy name?" had been one of Gudruna's first questions.

"Call me Gurth," he had replied.

So Gurth the thrall was named.

Gradually his stolid, almost sullen demeanor wore away, and he became less reserved and more companionable. A veritable giant in stature, with arms as large as most men's thighs, he was no dwarf in intellect, and soon became counted as a valuable addition to the belted Yarl's household. The work that was given him to do, he did well, and without complaint or demur. His dignified bearing and quiet reserve soon made him respected by all, and none regretted that the lady Gudruna had interceded for his life.

Often during the long winter evenings, when the wind howled dismally among the pines and the angry sea broke with a thunderous roar upon the beach, she would summon him to her waiting-room, and listen to the stories he told of the Saxons and their life upon the isle across the sea. She could never induce him to speak of himself; he always evaded the questions, or if pressed too closely, bluntly refused to answer.

"Wert thou a serf there?" asked the Lady Gudruna.

"No, my lady," replied the man, shortly. "But here thou art; art then happy?"

"I am thy slave, and I be happy where thou art. An' I were now a freeman, I would woo thee," he spoke out boldly, as he gazed into her face.

She dropped her eyes, and the telltale crimson suffused her neck and face.

"Thou canst go," she said shortly, and without another word the thrall withdrew.

"Impudent fellow; he presumeth too much," said the Lady Gudruna, yet the very next evening the Saxon was again summoned to amuse her with his stories of strange lands and peoples.

"Didst ever woo a maiden in thy own land?" she asked of him one day.

"Na," he answered shortly, lapsing back into his Saxon.

"Whose then was the lock of woman's hair which they took from thy neck pouch when thou wert captured?"

"'Twas my moder's."

The Lady Gudruna turned away her face, and a smile was on it.

"Who, then was thy mother?" she asked.

"The wif of my feder."

"Adone with thy riddles!" cried the lady, her curiosity getting the better of her.

"'Tis no riddle, my lady; 'tis plain."

She dropped the hand screen with which she was shielding her face from the glow of the pine fire. The thrall stooped, and sinking on one knee, returned it to her. For a second their hands touched and their eyes met. The next she was in his arms.

"I love you! Thrall or no thrall, I love you!" he cried in growing madness, as he held her to him in his great, strong arms.

She did not resist. She yielded to him, and in her eyes he read the truth—she cared for him—she loved him.

For a second they stood clasped together, in that great joy that comes to a man and woman but once, and then, as if to close the scene, there burst upon their startled ears a fearful din. Shoutings, curses, the clanging of sword against sword and battle-ax against battle-ax; the trampling and rushing of many feet; the ringing of the struck shield and the

[CONCLUDED ON PAGE 16]



"The Saxon serf for one brief moment stood as if of stone. The next, he had seized a fallen battle-ax, and flung himself with inconceivable fury into the midst of the fray"

"I want him; is not that enough?" and she smiled coily into the face of the grim old Viking.

"Have thy way then, girl," he answered half roughly. "Lead him away, Sigvald; keep him in one of the lower dungeons until I call for him."

The men hustled the prisoner away, and the Yarl and his ward turned toward the castle.

"Thanks, thanks, my lord," said Gudruna. "Thou shalt see I will tame this Saxon and make a good serf of him; he is strong and will prove of use to me."

That night, after the bustle and excitement of the disembarkation had subsided, and the Lady Gudruna was seated in her own chamber, she bade her maid, Hilda, go bring the Saxon prisoner.

"Let some of the men bring him here," she commanded.

she pointed to the fetters on the captive.

The men retired, and Gudruna commenced with what little knowledge she possessed of Saxon to instruct her new slave. She pointed to certain objects and named them in the Norse language.

"Bring Steingarda hither," she commanded her maid.

A young Frankish girl of eighteen entered. She was one of the Lady Gudruna's women thralls. A small iron collar encircled her neck. Her mistress touched it, then pointed to the Saxon's own brawny shoulders.

"Slaf," she said, "wilt submit," and looked fixedly at the prisoner.

Slowly he raised his head; their eyes met, then his glance fell again.

"Yes," he muttered.

"Say: 'Yes, my mistress,'" she, commanded.

The Strange Adventure of Helen Mortimer

By Maude Roosevelt

Synopsis of Previous Chapters

"An old lady going abroad wishes a young woman to act as traveling companion, must not be over twenty-five, and be able to speak French."

Helen Mortimer, a poor, New York girl, gets the position. Mrs. Harold Pancoast, her employer, entrusts her with a small steamer trunk, the contents of which are of great and mysterious value. Mrs. Pancoast fails to put in an appearance, and Helen Mortimer sails alone. Helen makes the acquaintance of Mrs. and Miss Watson, the latter of whom absorbs much of the attention of one Guy Barrington, much to the regret of Miss Mortimer. A fellow, whose name on the passenger list is George R. Barrington, seemingly forces his attentions on Helen in a very suspicious manner, and Worrendale, another character, seems to be in league with Barrington. A telegram containing a London address is stolen from Helen's stateroom, a peculiar odor of perfume left in the room points to Madame Patrie as the guilty person. Charles Lawson, a spendthrift and prominent member of New York's smart set, introduces himself to Helen. Barrington declares his love for Helen and gets a severe rebuke. Halifax, by a ruse, gets the trunk that Mrs. Pancoast had entrusted to Helen through the custom house unopened. Halifax helps Helen to the train, and then leaves to look after the Watsons. Barrington takes a seat in the same coach, and when Victoria was reached, he helped Helen to a carriage and asked for her trunk check. Barrington excuses himself, ostensibly only for a few minutes to get her trunk. Helen, suspicious, insisted that he leave his grip and coat in the cab, which he did reluctantly. He did not return, so Helen, in desperation, directed the cab-driver to the address Halifax had given her, and started alone and without the trunk. In the coat that Barrington left with Helen she finds the telegram that had been stolen from her stateroom. Helen catches Mrs. Pancoast that the trunk had been stolen, and she gets instructions to do nothing, as her employer had sailed. At the boarding house a man named Black attempts to recover Barrington's papers by entering Helen's room in the dead of night. Helen frustrates his plans by wildly discharging a revolver and arousing the whole house. Helen gets notice to vacate her room. She starts out in a London fog in search of another stopping place, and ends up by being kidnapped.

"I AM in the wrong cab!" I cried, too dazed to comprehend at once that I had fallen into a trap. "Stop it! quickly!"

"Oh no, you're not," said Black's voice, which had formerly been disguised. "You foiled me the last time, but you'll not do it again my lady!"

"What do you mean?" I demanded. "Let me out of this, or I shall cry for help!"

"Cry as much as you like, no one will hear you. Besides even if they do, the fog will conceal us."

"Help! help!" I shrieked, feeling wildly for the door.

"Here, stop that now," he said, seizing me brutally by the arm, "if you don't want me to use force! I can pretty quickly silence you; so, if you take my advice, you'll be quiet, and no harm will come to you."

"What are you going to do with me," I asked. "What can you gain by this?"

"I want those papers of Barrington's, and I mean to have them, so the sooner you give them up the better for you."

"I haven't any papers. I don't know what you mean, this is an outrage!"

"You have, for he told me he left them with you!"

"He left a bag with me, and sent his trunk in exchange for mine—"

"And an overcoat. The papers were in that coat!"

"Coat!" I exclaimed, with a show of surprise that was really worthy of an actress, for I felt it obligatory to defend those papers even at the cost of a lie, which you know I hate. "I know of no coat."

"He laughed, 'Oh don't play that bluff on me!' he said, 'The coat was placed in the cab with his bag; and if you have the bag, you have the coat.'"

"If he left a coat in the cab, it remained there!" I returned positively. "I certainly cannot be held responsible for the loss of Mr. Barrington's things."

"Do you mean to say you did not take that coat from the cab?"

"I took nothing from it. A man who ran after the cab, carried the bags and Mr. Barrington's trunk into the house while I was paying the coachman."

"He grunted reflectively, and was silent a few moments while I, feeling my stroke had told, continued vengefully, 'I should think Mr. Barrington had done me enough injury in taking my trunk, without setting you to spy upon me.'"

"He laughed again and said contemptuously. 'Bosh! what would he want with your trunk? Was there anything of value in it?'"

"There were things in it of value to me." "He made a funny little sound in his throat, and said cynically, 'Were there really?'"

"Yes, there were," I returned, "and if I were a man, or knew how to go about it, I should have detectives on his track now."

"Oh no, you wouldn't! Besides how can you prove he took your trunk?"

"Because I have his!"

"That wouldn't hold good in court. He could turn the tables, and accuse you of stealing his; there is more evidence against you than against him."

"This took my breath away, and beginning to fear all manner of new difficulties, I changed my tactics and begged him to let me out of the cab."

"You see I haven't the papers, so what is the use of holding me?" I asked.

"He uttered again that hateful laugh, and said, 'We shall see! I am very sorry, but your word is not sufficient proof, my dear young lady.'"

"Well, what proof can I give you? I shall do anything you wish?"

"I don't want you to do anything, it is for me to do," he replied with maddening calmness, "your part in this act of the play is to be passive."

"At that moment the cab came to a standstill, where I don't know, for I could see nothing. Black got out, and while he spoke to the coachman, I felt for the opposite door, found the handle and pushed it open, hoping to escape him under cloak of the fog. I felt him clutch my coat, but slipped out of it in a flash, got my foot on the step and rushed recklessly through the opaque darkness until I tripped, on what was doubtless the opposite curb, and fell. The fall did not hurt me, so I got up, and with hands outstretched, groped my way straight forward, knowing I must in time come to some building; but I was in terror at every step of falling down a cellar, or over some unlikely precipice. No one can know unless he has once experienced the horror of being alone in one of these impenetrable fogs, how dreadful it is. On every side peril seems to menace one; it is like being suddenly stricken blind in an unknown place. No sound reached me, it was as though I had fallen at night upon some unpeopled desert, surrounded by an infinite obscurity."

At last my hands touched a cold damp wall, and I felt along it timidly, until I bumped into an obstruction which, as far as I could make out by touch, was a flight of steps flanked by broad stone banisters.

"I had reached the first step when I heard a scraping sound on the pavement near me, then Black's voice saying, 'Keep to the right, Bob, and feel along the wall; spread your arms out.'"

"He was so close I knew with one wave of the hand he would touch me, and in abject terror I crept up the steps like a cat, making no sound. The top step was very broad and I had to slide my feet over it, in dread of falling, while below I could hear the scraping of heavy feet on the pavement that told me my pursuers were so close I feared they might detect the wild beating of my heart."

"Oh, my dears, I can never describe to you the terror of that moment! I knew if Black mounted the steps I was lost, and yet I dared not hurry for fear of making a noise."

"Presently my foot struck another step, making a sound he must have heard, and my outstretched hands came in contact with a door that yielded as I pushed it; and then, with a wave of relief, I saw a dim light beyond a second door in which was set a pane of frosted glass."

"I entered what was evidently a vestibule, and let the door swing softly behind me; but as it did so, it gave out a shrill squeak that was sufficient to betray where I was. I stood still listening, and to my horror heard feet mounting the steps. In despair I wrenched at the inside door, but it was locked."

"There was but one chance left me, and that was to lock the first door. In the faint light I could see there was a key in it, and quick as a thought, I closed and locked it two seconds before a hand on the outside wrenched the knob."

"I'll swear she went in here!" I heard Black say, "Give me a match, will you, so I can find the bell."

"Ow the deuce am I to locate my trap again?" queried another voice on the outside, and Black returned, "Easy enough, we have only crossed the street."

"I heard the repeated scratching of matches, then the buzz of an electric bell in the distance. Presently a form loomed up behind the glass, and the inner door was opened by an unkempt looking man, with rumpled hair and a very red nose. He stared at me as though I were a ghost, and appeared incapable of speech or action."

"Let me come in please," I said pushing past him into the hall which was narrow and long, lighted by a gas fixture in the center and reeking with tobacco smoke. The man shrank before me in amazement. I suppose I looked dreadfully white and frightened, but I didn't care what he thought, and deliberately closed the door under his hand."

"Vaal, I say Miss, this ain't no place for you," he said at last. "What's it ye want?"

"I am lost in the fog," I returned, "and there is a man pursuing me; I want shelter."

"But—this ain't the place for ye; I can't let you in here!"

"Let me stay a few minutes and I shall give you a reward," I pleaded.

"He scratched his head, and looked bleary-eyed up the hall. 'It's as much as my place is worth,' he said, 'I can't do it. This here's a—man's place, why they'd kick me out if I let a woman in!'"

"I heard the electric bell buzz again, and said frantically, 'I shall give you a sovereign if you will let me go into some room for twenty minutes, and deny that I am here to anyone who comes for me.' He watched me as with trembling hands I opened my purse, and clutched eagerly at the gold coin I drew out, saying in a hurried whisper, 'Step this way!' and led me up the hall, walking carefully on his tiptoes."

"The bell rang again, and then a savage voice bellowed from the rear, 'George, what are you doing? What's that bell ringing for?' And a frowsy looking man in his shirt sleeves, and evidently intoxicated, burst into the hall from a door farther down. When he saw me his jaw fell, and he came forward, staring in amazement."

"What's this?" he said, 'What the deuce!'"

"This young lady got lost in the fog," said the man with me, 'She came here for refuge.'"

"Refuge, hey?" said the other. "This is a good place to find that, my lady! This is the house of redemption! Come right in, and have a drink. That's what you want!" As he laid his hand on my arm, I shrank, murmuring 'No, no, I don't want it.' But he dragged me on laughing, and saying, 'Oh no, of course not! Ye never drink, do ye? Well you'll taste a drop to-night or I'm a badger!' adding to the man, 'see who that is at the door, and don't let anyone in, you hear? Man, woman, or child!'"

"The room he forced me into was like a large hall, with a bar at one end where a man was serving drinks, and at several tables others were playing cards and drinking. The air was thick with smoke, and the smell of whisky,—oh it was horrible! I can't tell you the effect it had upon me; nor can I remember just what happened, except that a lot of men crowded about me laughing and gibbing, and trying to coax me to drink something in a tall glass. I don't think I lost consciousness, but my mind became so dazed I could not take in anything that occurred. My misery was such that I would have given anything to have had Black even come into the room and take me away, for nothing could have been worse than the horrors of that scene, the hideous laughter and jokes of those base creatures. I felt as though I had sunk to the depths of perdition, that I was one of them, depraved and beyond redemption! Oh, girls, no words could even express what I suffered, having their brutal hands touch me, and their awful faces leering upon me, while I knew I was at their mercy, that I might never again be able to escape from them! They all looked like the lowest sort of men, and to me appeared very devils set upon inflicting me with every conceivable torture. And to think it was only a little past twelve in the morning, and in the heart of one of the greatest cities in the world."

"Suddenly I heard a voice saying close to my ear, 'You must get out of this, it is no place for you,' and I turned eagerly to the speaker who stood just behind me. 'Oh, will you get me out?' I asked, 'Now, quickly, please! Even the fog is better than this.'"

"She don't like us!" said one of the men, 'she don't like our liquor! gi'er a drop of Old Tom, she'll take to that like a—'"

"Get out of the way!" said my new protector, whose face was vaguely familiar although in my excitement I did not even attempt to remember where I had seen it."

"I say, what's 'e goin' to do!" cried another, 'Har we goin' to stand by and see 'im carry off the bloomin' prize!'"

"Then there was a hubbub of voices, and the creatures drew so close to me I thought I should faint;—laughing and swearing and breathing their foul breath in my face!"

"The man who had spoken to me, drew my arm through his, and after quieting some of the most persistent and noisy, led me out of the room and down that narrow hall that seemed to me then like an exit from the infernal regions."

"Oh, how refreshing and pure the dense air outside seemed after that loathsome atmosphere! The fog, impenetrable and cruel as it was, had a strangely soothing effect upon my over-strained nerves, and I breathed deeply of it, as I let the man lead me slowly down the steps I had felt my way up in terror so short a time before. That I was alone with an habitué of that vile den, in an obscurity worse than the darkness of night, held no terror for me. I really didn't care what happened, so long as I was out of that place, and had neither strength nor courage to fight any more against conditions that were beyond me."

"Do you think you can get me to Oakley Street, Chelsea?" I asked faintly, as we descended the first step. "If you will, I

shall—" Then I realized, with a sinking heart, that my purse was gone! It must have been dragged out of my hand by one of those wretches, when I was too miserable to notice it. This left me no money but fifty dollars I had in the little leather bag hanging around my neck."

"It's impossible in this fog," replied the man, "but I know a house just opposite, where you can be safe till it lifts, then I'll see you back."

"Now that I was calmer I was confident I had heard the voice before, and some past circumstance I could not then recall, was dimly suggested by it."

"Is there no restaurant, or shop, or public place of any sort near where I can go?" I asked."

"No, but don't worry, you'll be safe enough," he returned, and noticing he spoke like an American, I decided it was this that made his voice seem familiar."

"We descended the remaining steps in silence, but as we touched the pavement, I felt him start violently against me, saying under his breath, 'Good God!' then aloud, 'Who the devil are you?' and a voice I knew only too well, answered out of the fog, 'Is that you, Fred?'"

"Yes," he replied, 'What the deuce did you seize me for? I thought—'"

"Listen," interrupted Black, 'I had that Mortimer girl, and she escaped me in—'"

"He broke off abruptly, probably because the other nudged him, or gave some other sign, and we proceeded slowly feeling our way with our feet. 'I beg of you both not to torture me any more,' I said as firmly as I could which was a very pitiable attempt. 'It is an outrage and cruel to subject me to this treatment for no reason.'"

"Don't you worry, I'll see you through all right," said the man on whose arm I was leaning. 'You just do what you're told, and there will be no trouble.'"

"This way!" said Black's voice, 'keep a little to the left.'"

"Get out," was the other's response, 'I know the way, it's just opposite.'"

"I tell you it isn't. You have drifted to the right. Do you see that square of light? That's the window I told Marie to put a lamp in."

"All right, get on, we'll follow," said my guide, and added in a lower tone to me, 'I'd advise you to give up those papers, Miss Mortimer; they can't be of any use to you, and you will have no quarter shown you if you don't hand them over.'"

"As you will remember girls, the letters were safely hidden on top of the wardrobe of the boarding-house, and I did not intend to acknowledge I knew where they were after all I had suffered to keep them, for I felt I owed it to Mrs. Pancoast not to, and as there appeared to be no way these men could prove I had taken the coat from the cab that night, I felt it would be safer to keep up the deception."

"How can I give them up when I haven't them," I said. 'It is wicked to subject me to all this for nothing!'"

"Haven't you Barrington's things?"

"I have his trunk, which I have not opened, and a bag in which there are no letters that I could see. Certainly I took none from it."

"Here we came to some steps, mounted them, and Black, after feeling about on the door, opened it with his latch key, and we entered a lighted hallway."

"Is that you Harry?" called a woman's voice from the rear."

"Yes; come in here, Marie, I want you," said Black and led us into a small sitting-room where the lights were low. He turned them up and said to me, 'Sit down, please. You might have spared yourself this ordeal,—you haven't gained anything by it.'"

"I sank into a chair, for I was utterly worn out, and hadn't even the courage to reply, and glancing up at him perceived that he was shorn of both beard and mustache. 'She says she hasn't got the letters,' said the man who had accompanied me."

"That is what I want to prove," was the reply. 'Marie, you take this young lady into the next room, will you? And see if she has any papers concealed about her. You know how to make a search,—do the thing thoroughly.'"

"I glanced up at the woman who had entered, and, my dears, who do you think it was? Madame Patrie! The French woman who stole my telegram on the ship! I simply stared at her, and the thought of having her touch me made me shudder."

"Ah, so you found Miss Mortimer! That is very fortunate," she said in very good English, although as you will remember, on board the "Cedric" she had pretended that she was unable to speak it correctly! 'Come right in here with me please!'"

"The connection of ideas made me suddenly suspect who the man was who had taken me from the gambling den, and as I looked at him then, I recognized the friend Barrington had introduced to me on the ship as Worrendale."

"Mr. Worrendale," I said, "will you permit a country-woman of yours to be subjected to this indignity?"

"He rubbed his hand over his face, and glanced at Black, 'It's a nasty business,' he said, 'but those letters are of vital importance to Mr. Barrington, and he has—'

"Well, don't let us lose any more time," interrupted Black, "I shall continue to call him that so as not to confuse you, although, as you have seen, it was not his real name. 'Please go into the next room Miss Mortimer, and allow my wife to search you.'"

"But I haven't the letters, I tell you!" I began, then my voice broke, and rather than cry before those beasts, I followed the Frenchwoman.

"My dears she made me undress absolutely, and gave me a wrapper to put on while she examined every stitch of my clothing, even tearing the linings open! When she was satisfied there were no letters concealed, she returned to the sitting-room, and closed the door between. I heard their voices faintly, but did not care in the least what they were saying. It was such a relief to be alone for a little while, I did not even feel anxiety as to what new diabolical scheme they were planning; my one worry then was whether or not I should be obliged to spend the night in that house, and if so, how I could ever trace Mrs. Pancost. Already it was nearly the hour she was due in London, and even had I been free to do so, the fog would have prevented my going to meet her.

"My only possible chance of finding her, was that she would go to the address she had given me in that fated telegram, but the question was would she stop there after learning that I had not gone even to inquire about rooms, or to claim any communication she may have sent me to that address?"

"There was no use thinking over it, I could arrive at no decision, and there appeared to be nothing to do but let things take their course.

"After dressing, I hesitated whether or not I should return to the next room, but the dread of facing those two men again deterred me, especially as I knew I could not leave the house until the fog lifted.

"Feeling faint and exhausted, I had settled into a deep chair for a brief rest, when Madame Patrie returned, bringing wine and sandwiches, which she encouraged me to eat.

"When I had taken as much of them as I could, she brought writing materials, and informed me that her husband wished me to write a note to the landlady of my boarding-house authorizing her to give over to Mr. Worrendale everything I had left in the room I occupied there, which things he was himself to be allowed to take out of the room, and bring to Black for examination under my eyes. You can imagine my consternation at the thought of Worrendale searching through my room for those letters, and perhaps discovering the place of their concealment!

"However, as there was nothing to do but obey, I wrote the note, for I was at their mercy, and could only trust that, as I had packed all my things, he would never suspect I would have left the letters hidden in a room from which I was all prepared to depart, and as I knew the slightest hesitancy on my part would excite suspicion, I wrote as though it were a matter of absolute indifference to me.

"Well, my dears, as fate was determined to put every possible obstacle in my way, of course the fog continued dense the entire day, and my detestable captor decided not to go to Oakley Street for my things until the next day, so I was obliged to spend the night in that house. Madame Patrie, or Mrs. Morris, as she really was, tried her best to be nice to me, and as I absolutely refused to go to the table with those men, she brought some dinner to my bedroom, and endeavored to make me comfortable for the night, assuring me I should be as safe there as in my own home, wherever that may be!

"Sometimes I wonder why I should care what happens, when I realize of how little consequence I appear to be either to God or man. You two are the only creatures in the world who take the slightest interest in what becomes of me! And even from you I must be separated.

"Whatever this sort of existence is intended to develop, I do not feel it tending toward making me a better woman, for I am gradually growing hard, and losing my old high principles of life. It is circumstances like mine, no doubt, that make criminals of innocent persons, for when I think what I may sink to from having been launched into the world without the barest means of supporting myself, there rises in me an anarchistic spirit that makes me feel murderous toward all those rich people in New York who spend on mere extravagance and luxury enough to keep hundreds of helpless girls in comfort. However, I don't allow myself to dwell on these thoughts, for I know the danger lurking in them, and I try not to think of the injustice of life which so many others are suffering with me.

"The greatest peril in a situation of this sort is the appetite it creates for adventure and excitement, for although I have gone through so much, I realize I could not now settle down to a humdrum existence of earning my daily bread by a monotonous fulfillment of regular duties! You will not be able to sympathize with this, for you have never known what it is to go safely through harrowing situations you would never have believed yourself capable of surviving. The fact that I am still alive and well, in spite of everything I have experienced in these past weeks, has imbued me with an absolute contempt for danger of all sorts, for certainly things have been about as bad as they could be.

"But I had better not boast! The future

may hold much worse in store for me, for although at this writing there has come a brief calm, I am in constant dread of new and more trying developments.

"Well, to return to facts, I spent a very miserable night, and was awakened the next morning by someone knocking at my door which I had locked. I opened it to find Mrs. Morris, who asked if I was asleep when she knocked. I replied that I was, and she went quickly to the window, drew the shutters in and bolted them, which made the room very dark, and shut out a beautiful sunny day that I would have enjoyed after that horrible fog.

"Why are you doing that?" I asked.

"Merely a fancy of Mr. Black's," she replied, as you notice, keeping to his alias. 'He wishes the house kept dark,' adding, 'You may come into the next room for your coffee.'

"I don't care for any coffee, thank you," I said. 'I wish to get away from here as soon as possible,' and she answered,

"I am afraid you will have to wish for some time, then; for you cannot go until your luggage has been brought here and examined."

"I asked her when that would be, and she shrugged her shoulders, saying 'God knows, you'd better be reconciled and make the best of things!'

"Then you mean I am to be kept a prisoner in this house!" I demanded; to which she replied calmly; 'If you choose to call it so, yes; you are to remain here until they think it best to let you go.'

"You can imagine how I felt, knowing that Mrs. Pancost was probably looking everywhere for me, and very likely worried to frenzy about her trunk! In my despair

"By that time, having partaken of nothing in the morning, I felt faint, so was obliged to accept what she offered, although it was hateful to me, but I feared I should be ill if I fasted any longer.

"Morris did not return until after dark, then he and Worrendale came in noiselessly, bringing Barrington's trunk and bag, and my things, which they proceeded to open in the sitting-room while I looked on. Mrs. Morris went through my bag and shawl strap, while her husband, who, after trying many keys in Barrington's trunk, found one to open it, took everything out of that and his bag.

"It was rather interesting to watch them, they did it so thoroughly, going into the pockets of my clothes, feeling through the linings, examining your letter and the others I had saved, from Lawson, Halifax, and the typewritten one received at Cook's, and which Morris had no doubt sent me himself!

"I did not say a word, nor did they until they had repacked everything, then Morris said to his wife, 'Give us something to drink, Marie,' and sat down by the table, wiping his brow thoughtfully with a handkerchief. Worrendale followed his example, and when Mrs. Morris had brought them some beer, I got up.

"Now that you are satisfied I have no papers belonging to Barrington," I said, 'perhaps you will have the goodness to let me out of this prison!' And what do you think those beasts did? They looked at each other and exploded in uproarious laughter which brought Mrs. Morris from the next room, and she stood grinning like a Cheshire cat at the door.

"Oh yes," said Morris, when he was able to speak, 'we shall let you go, but I don't

all we want is your help to trace them. Sit down a few moments, then you may go where you like.'

"I obeyed wearily, and waited to be questioned, feeling sure I should betray myself if they attempted to cross-examine me, for my brain seemed absolutely incapable of retaining a thought.

"First I must tell you," began Morris, 'these papers we are looking for are of the gravest importance to us all, they relate to business matters in which we are concerned in connection with Mr. Barrington, and unless they are found, we shall suffer serious loss.'

"Imagine him appealing to my sympathy, after all he had made me go through! I can tell you every word he uttered gave me secret delight to know he had failed to find where I had hidden the papers.

"Now," he pursued, 'you can help us in tracing them, and also insure your immediate liberation, by replying accurately to these questions. Do you remember what sort of cab you took from Victoria?'

"A four-wheeler."

"Could you recognize the coachman?'

"No, I didn't see him distinctly; Mr. Barrington probably would know him, as he spoke to him."

"Ah! Was it the houseservant who took your things from the cab?'

"No, it was a strange man who ran after it for about a block."

"Morris here looked at Worrendale, and the latter said, 'The landlady at Oakley Street told us you carried a coat into the house yourself,' and I returned with a coolness that astonished me, for my heart leapt with terror, 'Yes, I believe I did carry my ulster.'

"The two men were both regarding me so critically I felt they could see right into my thoughts, and there came to me a sudden cold daring, born of desperation, for I knew that the slightest false move would betray me, and I dreaded having my falsehood discovered almost more than losing the letters.

"If the landlady said she saw me carrying it, I couldn't have had it on," I said, as though trying to remember.

"You might have been carrying Mr. Barrington's coat," said one of them, I was then too inwardly excited to notice which spoke.

"It is not at all likely," I returned. 'I was not troubling myself about his things, and would probably not have noticed if his bag were left in the cab or not.'

"Do you remember distinctly that you took your coat off?'

"Yes, distinctly. I can tell you no more, than I have already. Surely you have proof enough the coat is not in my possession! Even if I had the papers you are looking for, they would have meant nothing to me. Why should I want to conceal them? And what could I have done with the coat?'

"We don't believe you have them," said Worrendale, 'we came to that conclusion some time ago.'

"Then why are you still keeping me! I exclaimed on the point of tears, and blurted something more about their unmanliness and cruelty, which I think had some effect, for Morris said, more kindly,

"My dear young lady, we don't wish to keep you any longer than is absolutely necessary, but as it is only through you we can hope to get those papers, we must interrogate you. Can you remember about where the man first started to follow your cab?'

"Just as we turned off from King's Road."

"Was he a regular street porter?'

"I don't know what he was, except that he looked dirty and poor."

"You did not notice if he wore a blue badge on his coat?'

"No."

"Would you recognize him if you saw him again?'

"No. The landlady saw him, why did you not ask her?'

"I did," said Morris thoughtfully as he poured out some more beer. 'She said she had never seen him before.'

"Which went away first, the cab or the man?" asked Worrendale, and I, fearing there was some catch in the question, said I couldn't remember.

"You said you were paying the coachman while the things were being taken from the cab. Do you mean you didn't look to see if your things were taken off safely?'

"I saw the trunk and my bag taken; for the rest I did not care, and was too upset to pay any attention."

"But you must have paid the coachman before you paid the porter."

"I suppose I did; I don't remember."

"Worrendale sat back, and said to Morris, 'The man couldn't have taken the coat, Harry, under those conditions. It must have been left in the cab.'

"Oh, girls, you can't imagine my relief when I heard those words! I felt as one accused of murder must feel when he hears the jury pronounce him not guilty, and from sheer relaxation from nervous tension, I began to cry and sob almost hysterically. Although I hated myself for doing so, it served me admirably, for Morris immediately got up saying, 'Oh, I say, it's all over now, you needn't carry on like that! Worrendale take the shawl-strap and hand-bag, will you? I'll take the other. Marie get those dark glasses, please.'

"Where are you going to take her?" asked his wife, as she opened a drawer in the desk, and fumbled about in it.

"Wherever she wants to go," returned Morris. 'You have kept the windows closed all day, haven't you?'

"Certainly. Harry it isn't safe for you to go back with her to that Oakley Street house."

"He laughed shortly and said, 'What do you think I am, a fool?'

[CONTINUED ON PAGE 21]



"I want those papers of Barrington's, and I mean to have them!"

I pleaded with the woman, but it was like talking to a stone wall. She merely said: 'You can make yourself quite comfortable here. There is a light in the sitting-room, and some books. You may settle yourself to read and know you are perfectly safe.'

"I knew there was nothing to be gained by resorting to violence, for she was a big, strong woman, and could have managed me with one hand; so, after trying the sitting-room door and finding it locked, I sank into a chair and waited for her husband's return, wondering what they would do to me if, while searching in my room at the boarding-house, they should discover the coat and letters on top of the wardrobe.

"One thing I could not understand was why the house was kept in darkness. Not only were the shutters closed, but dark green inside blinds were drawn down, which kept out the faintest ray of daylight; but I loathed that woman so I could not bring myself to question her, especially as I knew she would not tell the truth, so I sat silent hour after hour, while she remained near me sewing. She never left me for a moment, and after attempting several times to draw me into conversation, receiving no reply, she gave it up, and sat mutely sewing at a waist she was making.

"At half-past twelve she went into the adjoining room, which was also lighted only by gas, and potted about, evidently preparing something to eat.

see why you call it a prison. Haven't you had every comfort? You have certainly had a much easier time, than we have!"

"I was in no mood to respond to this, and merely said, 'I should like to go at once, please.' At which they all laughed again like idiots.

"If your royal highness will answer truthfully a few questions, you shall be allowed to go as soon as you have done so," said Morris in his nice distinguished voice which seemed so incongruous with the part he was playing. 'You will even be escorted safely to your destination.'

"Thank you, I don't care to be escorted," I replied, 'certainly the commonest cabman is more worthy of a woman's trust than either of you have proven yourselves to be.'

"They smiled complacently at this, and Worrendale murmured something I did not hear, which appeared to amuse them both hugely, for they chuckled a moment, then Morris said, 'Pray sit down, won't you? I don't like to see a lady standing while I am seated, and you have kept me so busy these two days I am really too tired to stand.'

"I remained where I was, and asked coldly, 'Will you please let me go from here?'

"In a few moments I shall," he replied, 'when you have answered my questions.'

"You needn't worry," added Worrendale. 'We now see you haven't the papers, and

"The best of all ways to lengthen your days
Is to steal a few hours from the night."

SHADOWS and sounds tell the stories of night. The moon and stars print caricatures of earth's denizens upon wood, sward, water and field. It was the dash of a moving shade across one of these shadow pictures—that of a figure broadening and narrowing in rhythmic measure, darting from an indented woodland border to where the oval imprint of a solitary oak lay prone upon an open field—that drew me to think of shadow types and the stories of night they print in evanescent colors.

From far up on the mountain-side, where enormous chestnut oaks were hollowed by age and tattered by storms, came the Mephistophelian "Waugh O! Waugh O!" of the great horned owl; and the rocks, blythe when day sounds played upon them, now repeated one another in tones harsh and forbidding. The very skeleton of Nature, as spread in the February landscape, rattled with the cry. But rocks must answer as they are bid. Echo is but a puppet. "Waugh O! Waugh O!" The winter frost is not so chilling; one's marrow seems to be in cold storage. The pulsating shadow detached itself from that of the oak and glided away to wrap itself with bare tree tops until it, far up in the moonlight, seemed drawn to its projector—a bird in swift flight. The bird was Mistress Owl obeying the summons of her mate. "Waugh O! Waugh O!" was his love call. The sound told a romance of the night.

What sort of heart chords must Mistress Owl possess to be played upon alluringly by such a rasping vibrator? Yet odd, weird, uncanny though they be, there is not a voluntary night sound, save that of fright or battle, which is not one of wooing or signal of devoted companionship—even that of cats.

The night-calls, from the chirp of a cricket to the scream of a panther, are primarily appeals to but one sense—hearing. They are singularly energetic. They distinctly convey to the listener the line of direction. The aid of sight is lacking as an assistant. Darkness eliminates it. Somber dress, excepting when concealment in the daytime requires a costume imitative of surroundings, rules among night-going animals. The toad is difficult to distinguish in its retreat among the clods, the gaily jacketed frog matches the rushes and grasses of the water's edge, the katydid is shaded to imitate the stalks and leaves of its day rest, the whippoorwill is scarcely distinguishable from its roosting branch, mice and rats wear a garb toned to cellars and shaded retreats; no bird so closely resembles its background and environment as does the horned owl sitting in the entrance to a hollow tree bole.

Tramping the mountains at all hours of the night to learn the calls and habits of other prowlers than myself, had familiarized me with trails and distances, and rocks and trees to mark location. Knowing that Mistress Owl had joined her lover, that his "Waugh O! Waugh O!" would not be sounded again that night, unless early in the morning; for when mates meet there is no object in calling again, I took a near-by tree and a far-off hemlock that stood in the range of the trysting-place and made a mental note of them for future use. There was nothing to be gained by endeavoring to catch the couple at their trysting. Owl's eyes are far quicker to see moving objects in the dark than human eyes are to detect their whereabouts. Then, to, owls have feelings as well as mortals; it would not have been considerate to disturb them. Nevertheless, I resolved that I would find the nest of the couple. It would take but a few nights to locate its region, and a morning's hunt to find it. For owls hatch their young in February and March, and their nests are readily found when one knows how to go about the finding.

The horned owl, like the whippoorwill, has its fixed stands during the breeding season, from which to call. The whippoorwill usually has three, sometimes four. The owl I have never known to have more than three, oftener two. The stands of both are in the arc of a circle. In the gloaming, the whippoorwill usually calls from the northernmost of his stands; the owl is not so systematic. If the mate of the whippoorwill does not come to the first series of summons, he flies to the second stand and repeats his well-known cry. The female seldom fails him at the third. If she has been detained, or danger has halted her, he reluctantly goes to the fourth.

The female owl, like the female whip-



Nights with an Owl

poorwill, always obeys the call from the inside of the arc.

There is design in this; her flights are short and direct. She is absent from her eggs or owlets the shortest possible time. I have never known the radius of their flight to be over half a mile. Their flight is in a straight line from the day abode to the trysting place. These courses resemble the spokes of a wheel. At this point there will be a gnarled



GREAT HORNED OWL

tree with hollow bole, or with forks that afford a good resting place for the dry twigs, leaves, grasses and moss, of which her nest is made. Perhaps the fissure of a rock or the top of an accommodating stump may have tempted her to trust her three or four yellowish dumpy eggs in a nest within the one or in the depression of the other. The warmth of her nest gives her little concern. Every feather of an owl is as movable and expressive as the muscles on one's face. By them she clasps her eggs and very young to her body, which is proportionately small to her feathered self, and thus keeps them warm. I have seen startled owls fly quite a distance from their nests before dropping an egg. I have been assured by an observing hunter that he has known owls to return their eggs to the nest after a sudden flight.

It is not within or on high that one must look for further indications of being "hot" upon the nest, but at one's feet. The squirrel hunter finds the first indications of his game in the dropped gnawings of hulls and nuts under the trees on which the squirrel "cuts"—"Sign" he calls them. The sign of an owl's castings are feathers, bones, mice skins and other matter separated in the owl's crop as indigestible. When fresh they are egg shaped and are voided through the mouth between meals. This "sign" lies immediately about the owl's abode.

The ground is a veritable Golgotha. The comparative anatomist, skilled as he is to name any animal from a fragment of its make-up, can write the menu of the owl's meals by the calcareous and other remains found in these casts. He does not have to repeat the tragedy of the goose that laid the golden egg—cut the bird open for the knowledge which is his wealth.

But rather than follow the anatomist in his search among the dead, let us follow the owl after the living. The flight of the owl is almost noiseless. There is a soft stir of the air as if moved by the wave of a silken handkerchief. The loping skunk upon its nightly hunt for food finds itself fast in the

talons of its greatest enemy before its ears have caught the sound of its approach. The alert pheasant and quail, huddling in coveys beneath young cedars or protecting bushes, are snatched from their covers ere their quick legs or humming wings can start their bodies to safety. Perched birds, with their heads beneath their wings, in their accustomed leafy sleeping places in woodland or fen, and tree-roosting poultry about the farmhouse, fall easy prey, and are surprised, caught, lifted, borne away by the swift marauder so silently that their neighbors are not awakened or the quiet of the night disturbed.

Off in grassy meadows the dart of the field-mouse in its gnawed runway is not quick enough to escape the fatal swoop. Thousands upon thousands of them are gulped whole as owl titbits. The farmer is an enormous gainer thereby. Where the brook pools or the placid mill race winds meekly along the hillside, the owl sits with his eye fires lighted and lands the attracted fish with his hooked and sharpened claws. Even the wary snake—his rival in knowledge—glides to its death in the open wood, lane or where it, too, is watching for a finny meal from the branch of a water-shading alder. The night-feeding, flying squirrel, with belly white as moonlight and back shaded to lichen-covered branches, with movements so rapid as to puzzle the human eye, alone of the night prowlers seems to escape the voracious bird, and even to enjoy the fun of baffling the bird of wisdom.

At Mount Gretna, Pennsylvania, in the forest, wild as when the Iroquois owned it as their hunting ground, I had on the porch of my mountain home a large wire cage in which many of these pretty animals played the night long. A screech owl discovered them. Nightly he came, coveted, and perched upon a near-by tree to eye them with greedy longing. Watching his chance, when a sportive squirrel clung to the wire, he dashed at it, clutched viciously, held the meshes in his talons, and only after a minute or more of anxious query would he rec-



BARN OWL

ognize that he held nothing but clawfuls of net work, and that his nimble quarry was chattering at him from close-by vantage. Many a time his frequent dashes and rattle of the wire awakened me. The tamest squirrels, after a romp on the rustic work of my porch, occasionally sailed away and spent the night as they pleased. Notwithstanding their ever active enemy, they always returned unharmed.

The interests of the night are not limited to the habits and forages of the

owl. To one who will study them they are full of entertainment and instruction. They are a novel addition to the interests of the day.

CHARLES MCILVAINE.

The Thrall—A Story of the Vikings

[CONTINUED FROM PAGE 13]

groans of wounded men, and above all the hoarse rallying cry of the Yarl's men: "Disar-holm! Disar-holm!" and an answering, strange defiance: "Qualia! Qualia!" (Kill! kill!)

The Saxon flung the girl from him, and started erect, with strained, terse muscles.

"'Tis war!" he cried. "Stay you here!" and in great strides he dashed from the room.

He bounded down the stone-flagged stairs and burst into the great hall. A glance revealed what was amiss. The Yarl's men had been surprised and driven from the castle battlements. Angantyr himself was sore beset; he was wounded and hard pressed. His followers had rallied around him in one, last desperate ring, fighting to the end. At the head of the invaders towered a giant form. It was Tunga, surnamed, "The Black."

"I have come to repay thy visit, Angantyr," he cried. "I was not home to welcome thee, when thou camest to me; now we have met we will settle the score! Lay on, my men; take the Red Yarl alive."

The Saxon serf for one brief moment stood as if of stone. The next, he had seized a fallen battle-ax, and flung himself with inconceivable fury into the midst of the fray. His face was blood-red, and the great sinews of his huge arms stood out in long-quivering waves.

"Well said, Tunga!" he roared in bull-like fury. "I, too, have a score to settle with thee. My brother's blood cries out from the blackened embers of Rotterdome; this day shall he be avenged."

"'Tis the Saxon churl; the welp of Northumbria!" cried the Black Earl. "What doest thou here, dog—and with a thrall's collar upon thy neck—fit harness for thee. Lay on, then. Thy brother's blood will cry yet a while longer!"

The fury of the Saxon was something terrible. He was beside himself with anger. He split men open with his great ax as lightning splits the forest trees.

"Look to thyself, Tunga!" he roared, as he fought his way toward the Black.

"And to thyself, hound!" answered his opponent, as he made a vicious cut at the Saxon's unprotected head. It was his last speech. With one fearful blow, the serf split his body asunder from crest to middle, and then fell fiercely on his followers. The big red Earl was close behind him, but the Saxon towered above him half a head.

It was the turning tide of the struggle. The Black Earl's men gave way; then ran. Some escaped to their ships, but more were captured and slain. Disar-holm was safe. The attack was repulsed.

It was past midnight when Yarl Angantyr again gathered his followers together, and counted his losses.

"It is to thee that thanks be due," he said, advancing toward the Saxon thrall. "What reward can I give thee; what wilt take? 'Tis thine for the asking."

For a few seconds the Saxon did not answer. He stood bleeding and in disorder, gazing over their heads. Then his glance fell on the Lady Gudrun, as she stood on the raised dias at the further end of the hall. He pushed his way through the crowd, and boldly took her by the hand. Then he turned toward the gaping and astonished throng.

"Her," he said defiantly. "I will take her."

"Knave!" shouted the Earl. "What madness is this!"

But the Lady Gudrun stood out, very white, and held up her hand.

"'Tis no madness," she said quietly. "He was my thrall, now I am his. My Lord; my Master," and she knelt at his feet.

In an instant he had stooped and raised her in his arms.

"She loves no low-born thrall," he said. "The King of Wessex was my father, and Northumbria, Earl of that name is my brother. There was another, he was foully slain, but he is avenged, for Tunga is dead."

Seized with an uncontrollable impulse, the mass of Vikings sprang forward. They formed a ring around him. They raised their swords high above his head; the weapons clashed together as they met in a circling, flashing center above him, and a mighty shout went up.

"He is avenged! Tunga is slain! Long live the betrothed of the Lady Gudrun. Long live the Saxon noble!"

FRANK E. CHANNON.

GAR belonged to a little bacon-faced Madawaska boy named Maxime Lizoth. His father called him "Marxeem" or "Marx." But his father, being a lumberman, was at home but very little, and the charge of the little clog, or farm, situated a few miles from the hamlet of St. Basil, was left mostly to Maxime. The boy sowed buckwheat and planted potatoes in the spring, and in September harvested his crop, burying his potatoes, like a squirrel, deep in a hole in the ground, that they might be kept safely for winter use. The Madawaska people have no cellars. If they did have them their houses would be warmer, for the climate is very severe, and winter lasts nearly or quite seven months of the year.

Maxime did the hardest part of his farm work with two little "sparked" cows. These he yoked to his plow or his cart.

His plow would have amused a New England boy, for it looked more like a dry tamarack root than a modern plow. But it did its work, with the help of Maxime and his yoke of cows. These he had named "Gadelle" and "Gelette." It was very amusing to see Maxime at his plowing, shouting, "Herret, Gadelle! Mushdaw, Gelette!"

Besides his two cows, the boy owned a flock of twelve or fifteen sheep, and Gar was lord of the flock. In his lambhood, he had been a great pet, a sort of "cosset." No doubt he was given his full share of provender and other good things; and this, perhaps, was the reason why he was so large.

At the age of five years Gar certainly weighed not less than two hundred pounds. From the great length of his wool he looked even heavier. It was said that the weight of his annual fleece was fifteen pounds.

When a lamb, Gar was no doubt gentle, like all of his race; but as he grew older and larger he became conscious of the forcible arguments that lay in his big curled horns and hard head, and used them to resent familiarities from strangers. He became a "knock over" in good earnest to all the neighborhood boys. Maxime and Gar, however, understood each other, and avoided antagonisms that should have no place between friends.

Gar's first exploit of note occurred when he had reached his third year. Maxime's sheep pasture was on the mountainside, above his clog. It was a tract of thirty or forty acres, that were only partially cleared from trees and brush. The public morals of that district are probably no better than those of other localities. At any rate, farmers like Maxime, who owned lambs, occasionally lost them, and the theft was not infrequently charged to their neighbors, and not to the bears and other wild beasts.

Then, too, the "river-drivers," as they passed up and down the St. John's, had an unpleasant custom of kidnapping fat lambs that might be found upon the shores, and roasting them over their camp-fires.

During the latter part of May and the first weeks of June, when the drivers were coming down the river, Maxime used to go to his pasture once or twice a day, to keep watch over his little flock.

One foggy morning, as he was calling the sheep together, he was struck by the appearance of Gar, who seemed to be standing guard over something red that was lying on the ground at a distance from the rest of the flock. Whatever the object was, it had life; for while he looked, it rose partly up, but Gar, drawing back, at once butted it flat again.

Maxime ran to the animal, and lo! the red object was a red-shirted riverman, who was in sorry plight. He could scarcely speak, but contrived to stammer out the words that he thought his back was broken.

Near by, lying on the ground, was one of the best lambs in the flock; with the tendons of his hind legs cut. The would-be thief had a dirk in his hand, with which he had evidently made desperate efforts to quiet Gar, but had only succeeded in wounding the sturdy animal.

The fellow had little to say for himself. He had caught and was carrying off the animal on his shoulders, when Gar charged him from behind, striking him full in the back; and afterward, when he tried to rise, offered continual objection by knocking him flat again.

There was a little Catholic hospital at St. Basil. The lamb stealer was taken there, and afterward recovered.

Next came a less interesting event in Gar's life. The following autumn, two Frenchmen passed Maxime's farm, driving before them a flock of sheep. With

The Leader of the Flock

A Story that Will Interest the Boys and Girls

the flock was a large buck. Seeing Gar, and noting his large size, the men challenged Maxime to match him against their own buck for a butting duel.

Max consented, I am sorry to say, and the two bucks were turned loose in a field. At first they merely eyed each other suspiciously. Then jealousy seemed to seize them, and after some menacing stamps of their hoofs, they "squared off," as Max said.

First they drew apart, backing deliberately away from each other for a hun-

say, "Fetch on another." The Frenchmen were much excited, and wanted to kill Gar; but after a good deal of muttering and head shaking they finally went off.

There was a kind of wildcat, or lynx, found in the region of Gar's exploits that sometimes throttles sheep.

It is a cowardly creature, but when at bay, or when surprised while eating its prey, will fight savagely, and is then by no means an antagonist to be coveted by either man or beast. Sometimes



"Seeing the ram coming, the bear rose on its hind legs and stretched out its paws to seize him"

dred feet or more. Then they charged at full gallop, like old-time knights. When within ten feet of each other, both paused and again drew back. It seemed as if each thought he hadn't secured momentum enough to give full effect to the collision.

This time they withdrew to almost double their first distance apart. Then they charged. There was no pause now. Their heads smote together with a sounding crack. The result was disastrous to Gar's antagonist, for his neck was broken, and he fell sidewise and died.

As for Gar, he shook his head slightly, then pawed his dead rival, and turned to the spectators, as much as to

the old males reach the size of a large dog, and have long retractile claws and big round heads.

One morning in spring, shortly after the sheep had been turned into the pasture, Maxime, on going there to give them salt, found both Gar and one of his largest lambs were not with the flock. The other sheep seemed to have been recently frightened.

After a brief search, Maxime found the lamb in some bushes, dead. Its throat was torn, and bunches of its wool were pulled out and scattered around. But where was Gar?

Maxime called and called, but it was not till he had searched almost every section of the pasture that he at last

saw his lordship. He was standing under a yellow birch tree, looking up, and occasionally stamping his foot impatiently.

On going nearer, Maxime saw a large mottled lynx in the tree. Gar must have attacked the marauder and driven it away from the lamb, and had butted it so hotly that the lynx had been forced to climb the birch for safety.

Maxime ran to the house of a neighbor, borrowed a gun, and then shot the lynx.

But Gar's great feat—one which should make him forever famous in the history of sheep—was not performed till the autumn of the next year.

The black bear is also common in the region where Maxime lives. Farmers owning sheep often suffer from its attacks, which are usually made in the night. Sometimes an entire flock of twelve or fifteen sheep has been killed in a night by a single bear.

That autumn several of Maxime's neighbors on that side of the river repeatedly lost sheep, and rightly or wrongly attributed their losses to one particular bear, which had been seen at several different times.

To secure the safety of his flock, Maxime, who was a prudent lad, drove his sheep home every night and shut them in their cote. But one afternoon, toward the last of September, the boy had his buckwheat to get in, for it threatened rain.

Before his last load of wheat reached the barn it was twilight. Taking his salt dish he hurried up the hillside to the pasture. Just as he reached the log fence he saw the sheep running along the upper side of the lot, with a large black animal chasing them.

Dark as it already was, Maxime knew the animal to be the "sacre ours noir." Bent on saving his sheep, he leaped the fence and ran toward the frightened animals. But he had a bushy hollow to cross. When he had reached the other side the bear was no longer chasing the sheep. Gar was facing him, and backing as if he had just given his bearship a butt, and was preparing another.

Maxime heard the bear growling savagely, and feeling somewhat afraid, as he had no weapon but a club, he concluded to remain a spectator. Gar backed off thirty or forty yards, then, lowering his horns, plunged at the bear. Seeing the ram coming, the bear rose on its hind legs and stretched out its paws to seize him.

Gar's hard head, coming like a shot, hit the bear full in his stomach, in the very roundest portion of it, and instead of clasping the buck, he went heels over head backward. Maxime said it sounded like striking on a big pumpkin.

With a fierce growl the astounded bear scrambled up. But at the same time Gar had backed off again. Maxime could plainly hear their heavy breathing. Scarcely had the bear regained his feet when the ram again charged him with tremendous force. Again the bear rose, and again was knocked fairly heels over head before he could seize his hard-headed antagonist.

This maneuver was repeated eight or nine times. At each charge of the buck the bear would rise, bear fashion, to grapple Gar, and every time was promptly sent sprawling upon the ground.

After the eighth or ninth "round," the bear failed to rise. Gar butted at him several times, however, but he did not respond.

Maxime then went cautiously up to the prostrate animal, who lay limp and with his tongue hanging out. So completely used up was he that the lad had no difficulty in making an end of the dangerous brute with his club.

FRANK H. SWEET.

A Japanese Boy's Name

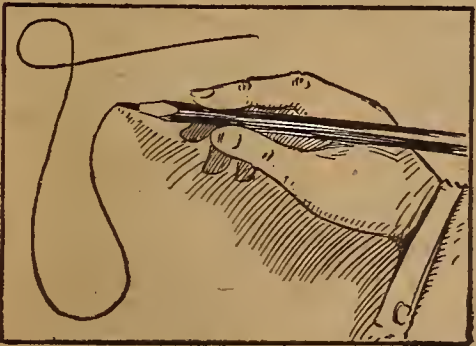
EVERY American child can answer the question, "What is your name?" without hesitation, but the Japanese boy must think a little to make sure, for at various periods of his life he is called by different names.

He receives his first when he is just a month old. Then three different names are written on three slips of paper and thrown up into the air in the temple, while prayers are addressed to the family deity. The one that falls first to the ground bears the name the child is called till he is 3 years old. Then baby clothes are laid aside, he receives a new name and his education begins.

At 15 the Japanese boy receives a new name in honor of his coming of age. His name is changed again on the occasion of his marriage and on any advance in his position. Even mortal illness does not end this confusing state of affairs, for when death comes a new name is given to him, by which presumably he is known in the spirit world.

The Puzzler

The Six Pictures Below Suggest the Names of Six Different Books of the New Testament of the Bible



Answers to Puzzle in the December 15th Issue: Daniel, Lamentations, Numbers, Proverbs, Psalms, Job

How the Farmer Lives in the Middle West

EASTWARD from the Rocky Mountains, extending six or seven hundred miles to the Missouri River, is an immense, rolling plateau—or, in its natural state, practically unbroken prairie land. For the purpose of this article, the block composing Nebraska, Kansas, eastern Colorado and the new state of Oklahoma will be considered, the conditions therein being relatively similar. It is almost exclusively a farming and stock-raising region, the industries of mining and manufacturing engaging the attention of but a small proportion of the inhabitants.

This great agricultural plain is sometimes spoken of by persons high in authority as the semi-arid region, by reason of the prevailing opinion that crop raising is a less stable industry there than in other sections. The term, however, is a misnomer as applied to the eastern half of the block. That section has, within the last quarter of a century, and especially within the last decade, experienced a marked improvement in crop-growing conditions, either by reason of an increasing rainfall or a more even distribution of the same. The government climatic experts do not encourage the idea of a greater rainfall, even declaring that such a phenomenon would be impossible and absurd. However, as between theory and experience, theory must finally give way and it is the universal observation that rainfall has materially increased, and the belief is, in a measure, borne out by the enormous gain in the productive capacity of the region.

West of the center of Nebraska and Kansas the term "semi-arid" is applicable, and eastern Colorado may be said to be totally arid. It is remarkable, though, the extent to which crops are raised in the semi-arid belt and the prosperity which has come to that region in recent years. About twenty years ago, western Nebraska and western Kansas, then an uninhabited plain but recently cleared of myriads of buffalo, experienced a tremendous and unreasoning boom. For about five years untold thousands of settlers poured into the region until hardly a quarter section of government land remained. No crops of consequence were raised, and the homesteaders were forced, many by actual hunger, to abandon their holdings and creep back to the more favored counties. Land which had maintained a considerable value for a time became almost valueless, and the whole vast region was practically denuded of population. This condition prevailed over about the western third of Nebraska and Kansas and the eastern third of Colorado.

Many amusing stories are told of that wild stampede, both going and returning, for the scramble to get out was but little less frantic than the scramble to get in. It was not uncommon for a settler, well equipped with team and wagon, to pass out toward the Eldorado, the clean, bright canvas of the prairie schooner encribed with the legend—"A Homestead or Bust!" Within a few months the same individual would journey back at a somewhat lessened speed, team emaciated and wagon rickety, the inspiring declaration replaced by the single expressive word—"Busted!"

As indicating how small the value placed upon the land, this story is related: A settler came creeping out of the desolation, his family sheltered beneath the torn, dust-begrimed wagon cover, and a gaunt, foot-sore calf tied behind the wagon. A sympathetic farmer to whom he related his woes, inquired what disposition he had made of his claim.

"Oh, I traded one eighty for that calf behind," replied the ex-homesteader.

"What did you do with the other eighty?" persisted his host.

"Well, if you must know, I'll tell you—I watched my chance when they were making out the papers and slipped both eighties into the deed."

Very gradually the conditions of utter failure changed, and after a time, to the astonishment of those who made the experiment, excellent crops of wheat, Kafr-corn and even corn were raised. With the improved outlook homesteading was again resumed, and now the country is fast settling up and is taking on the aspect of permanency and pros-

perity. True, the years of total crop failure may come again, but somehow the visitation having been deferred from year to year, the terror of it is much lessened. Ten years ago the writer traversed the heart of that region, and

for hundreds of miles, although the season was midsummer, he did not see enough of wheat or other grain to load a half-dozen wagons. Now that same region is producing large quantities of fine wheat, and the land, then consid-

ered practically worthless, is valued at from \$10 to \$25 an acre. The rehabilitation of western Nebraska and Kansas and eastern Colorado is really one of the marvels of the times—a phenomenon for which there is no reasonable explanation.

As a farmer boy in Kansas, the writer lived, in a figurative sense, in the shadow of a cloud of grasshoppers. In the early seventies, while the whole region west of the Missouri River, was yet in a pioneer condition, a horde of ravenous grasshoppers visited the Nebraska-Kansas country and carried desolation everywhere. The unwelcome visitors remained for about a year, coming in midsummer and departing in midsummer, thus being enabled to completely destroy two crops. Stories are told of cornfields swept as with fire and destroyed in a day, of trees denuded and pastures blackened. Every green thing, it appears, went into the maw of that rapacious horde, and the settlers, most of them poor and struggling, were left in a condition bordering upon want.

Contrary to universal expectation, the plague never returned, yet the shadow of that grasshopper cloud—at times it did actually obscure the sun—has been over the region and has had an influence in promoting habits of frugality and industry. Having once been menaced by famine, it was natural that provisions should be made and maintained against a possible, even probable, return of the calamity.

This habit of saving and caution has served the people well at times, for while the plague of grasshopper never returned, numerous other adverse conditions have been visited upon the people. Perhaps in no other section of the Republic did the pendulum gravitate so far during the pioneering period, the ups and downs, indeed, being so interspersed and so extreme that the old adage of a "feast or a famine" was especially applicable. The first half of the nineties brought remarkably distressing conditions. One crop season after another proved unsatisfactory, the prices of products and of live stock were low, and in some sections the farmers, after exhausting the savings of other years, were brought face to face with almost absolute want. In one neighborhood, in central Kansas, I saw honest and industrious farmers beg with tears in their eyes for a little store of horse feed and family supplies on credit in order that they might have another throw at the gamble of crop raising. Nearly everyone had a strong desire to immigrate to some other part of the country, and would have sold their holdings for a pittance had there been anyone to buy.

That season was, happily, the last of the failures, and those same people would, at this time, think nothing of expending \$25 or \$50 in cash for small purchases in the course of a Saturday's shopping expedition; nor would an offer of \$75 or \$100 an acre tempt them to sell their farms. One or two rousing wheat crops, supplemented by rousing corn crops, and enhanced prices for all products, transformed the tearful beseechings of those agriculturists into a financial condition highly reassuring and refreshing. The old house was repaired or a new one built, the battered furnishings thrown out and the family blossomed into a new existence. Now, for a decade, these improved conditions have been steadily maintained, and it is difficult to believe that there will be any material lessening during the coming years. Of course much of the prosperity is directly traceable to the exercise of more intelligence in farming and in conforming to the inevitable laws of climate and latitude.

The past ten or fifteen years have brought the people to a realization of the wealth which lies in the small, condensed products of the farm. Creameries have multiplied until nearly every country road is a milk route and the hum of the hand separator can be heard morning and night in two thirds of the farmsteads. The average farmer keeps a herd of eight or ten cows, sells the butter fat to the creamery company and raises calves and pigs with the separated milk. This adjunct to the larger farm operations is in great favor by



FARM HOME IN WESTERN KANSAS—A REGION ABANDONED AS WORTHLESS FIFTEEN YEARS AGO



AT WORK WITH SEEDERS IN THE WHEAT BELT



PICKING COTTON IN OKLAHOMA



GATHERING APPLES IN THE NEBRASKA-KANSAS COUNTRY

reason of the fact that it brings a regular payday, a perquisite of the wage-worker which has always been the envy of the farmer.

The poultry yard, too, has grown in favor, and is now a close second to the dairy in the modern farming plan. Until recent years the sale of poultry products was confined to the scant markets of the country towns. Now every town has one or more poultry houses where-in everything of feathers is bought, and a constant market the year round is thus afforded. Very few exclusive poultry farms are to be found, as in some other regions, and it is very rare that the barnyard fowls are given more than passing attention. However, the well-known capacity of a small flock of fowls having the run of the feed-lots yields, in the aggregate, an enormous store of poultry products which finds its way to the cities and to the mining country of the West. The farm family whose sale of poultry products amounts to less than \$100 during a year is seldom found, and with many the sum reaches several hundred dollars a year. The old custom of barter at the general store is still followed, although to a much less extent than formerly, the creameries and poultry houses having relieved the merchants of much of that business.

In the matter of staple crops there is a wide diversity in the great region.

Roughly speaking, of course, wheat and corn are the two principal crops. Nebraska raises spring wheat and is a notable corn country. There, too, considerable flax is grown, and it is regarded as a fairly profitable crop. Kansas is noted for its great areas of winter wheat and for its corn, although the wheat belt does not cover more than a third of the state, and in many sections corn is a very scant and unsatisfactory crop. Western Kansas and Colorado produce large quantities of alfalfa, and it is there that the sugar-beet industry is taking a firm hold. In that region irrigation, both from streams and wells, is practised to a limited extent. In many parts of Kansas the growing and baling of prairie hay for the city markets is a thriving industry, and is considered profitable, although the average yield is not much over a ton to the acre and but one cutting during the season is obtained. Oklahoma adds cotton and tobacco to the regular staples.

In the production of all of these crops, and of the limitless variety of lesser crops, modern methods, tools and appliances are used. Heavy manual labor enters much less into the field work than formerly. The derrick and fork and hay-loader have replaced the hand pitch-fork and its toilsome use, and the machine corn-binder the corn-knife of wearisome memory. Riding

plows and cultivators are now in general use, and the operator is no longer obliged to trudge the endless furrow. Windmills and gasoline engines have, in a measure, usurped the pump handle and corn-sheller crank. To some extent the barbed sickle has taken the place of the smooth sickle, thus robbing the noon hour of its old-time grindstone terror. In my youth, the tail end of a separator seemed to me the exemplification of fate. It was there that I was always stationed with the admonition to keep the carrier clear, and though I toiled to my last ounce of strength, I was overcome and conquered—buried hopelessly beneath the inevitable upheaval. Now, though I am no longer called upon to serve the rear in thrashing time, I am pleased to note the splendid conveniences of the modern steam-driven thrashing machine, especially the powerful blower which has taken from the straw-stack the terror of fainting fatigue, of blinding dust and thirst unquenchable.

Notwithstanding these many improvements, the fact still remains that the labor of the field is heavy, and that farmers as a class work exceedingly hard during hours of relentless length. With the first streak of dawn, smoke may be seen curling from the kitchen chimney and the savor of home-smoked ham proclaims an early breakfast in

preparation, and the setting sun nods cheerfully to the work teams rattling in from the field. How many hours in the summer season have intervened? Certainly a number sufficiently numerous to throw a labor union into a paroxysm of indignation.

There are, of course, all degrees of farmers, from the poor renter, who is struggling for a bare existence, to the man whose farm is an investment and a business. The latter is inclined to delegate most of the hard and routine work to the "boys" and the hired men, and to enjoy something of freedom and leisure. He rides about in his comfortable carriage or astride of his favorite saddle horse, usually upon some matter of business, goes frequently to the county seat, where he is upon intimate terms with the lawyers and bankers and merchants, and takes an active interest in politics and public affairs. The rural mail carrier brings daily papers, which he takes ample time to read in the shade of the front porch, and the telephone lends to his residence an air of business and convenience. So ample are the railway and mail facilities that Kansas City and Omaha morning papers are delivered to farmers living several hundred miles inland and several miles from a post-office by nine or ten o'clock in the morning.

[CONCLUDED ON PAGE 31]



THE elephant is a great laborer. He rarely strikes, belongs to no unions, requires no wages, and can do the labor of twenty or more men, all in return for his maintenance—which, however, is a pretty big item. Of course all elephants, even those in shows, do work of various kinds, such as hauling wagons and so on; but it is in the East that one sees these monsters regularly employed.

There are yet living in India a great number of wild elephants, strictly preserved by the Government, which finds it profitable to use the huge beasts in hauling guns, building tanks, and also on famine works and fortifications. When vacancies occur in the ranks of these straggle workers, word is sent to the Department of Woods and Forests that more "recruits" are wanted, and forthwith an immense elephant trap is set up. This consists of a great, staked enclosure whose walls are made of solid tree-trunks planted close together, and having a wide-spread, funnel-shaped opening. On a day appointed the whole region is alive with beaters carrying guns, gongs and fireworks, and sooner or later a herd of trumpeting and startled monsters find themselves within the preserve's wedge-shaped walls, and then they have no other alternative than to rush into the corral.

When they find themselves trapped, the elephants are of course furious, and attack the palisades with their trunks and tusks. After a day or two they quiet down somewhat, and then a vast quantity of hay and green stuff is fed them. Next comes the process of their breaking-in or taming. This is done by means of tame working-elephants, selected for their sagacity and intelligence. These carefully-trained animals, without any mahouts or drivers on their backs, walk in a stately procession to the corral among their wilder brethren, and deliberately proceed to talk to them and argue with them—or so it seems.

For some days the unhappy prisoners refuse to listen to reason; but gradually better counsels prevail, and at length the prisoners come forth one by one, each of them carefully roped in between two tame working elephants. It is a fact that if the prisoner on these occasions does not behave himself, after repeated "warnings" from his brother guardians, they apply severe "persuasion" to him through the medium of their tusks. Thereafter the beasts grow more docile, and within a week or two of the time of the entrapping of the herd the wild elephants are at work with their neighbors.

But to see elephants employed precisely as though they were human laborers, one has to go into the great teak forests of Burmah, and into the sawmills and yards of Rangoon and Maulmain. Burmah teak, as is well known, is a wood valuable as Honduras mahogany; and in both Upper and Lower Burmah there are almost illimitable forests, great tracts of which are leased out to private corporations by the Government of India. These companies find it much cheaper to employ elephants as laborers between the forests and the sawmills than to lay down even the cheapest portable railways. The system of work is something like this:

Expert men fell the trees much as they do in our own forests of the Northwest; and then trim off the branches. No sooner is this done than along comes an elephant trailing chains behind him, and with or without a Hindoo, Burmese or Siamese mahout on his back or head. If all that is known of the intelligence of these working elephants was printed, it would seem incredible; and yet anyone who has to do with these huge creatures will tell you that they act and deduce and reason precisely as human beings do.

Chains are fastened around the prostrate log, and the elephant begins to drag it through the forest for many miles to the sawmill. Here the logs are squared by machinery, and other elephant laborers stack these logs for their reception on board ship.

Now observe a couple of elephant laborers handling one of these squared teak logs. It lies on the ground. One of them, the "foreman," goes to one end of the big log, drives his tusks into the ground at the side of it, curls over his trunk, brings one end of the log onto these tusks, and lifts the end slowly. Meanwhile, his mate has placed a stone or a block of wood underneath the log, and this done one elephant goes to each end, and with a little screech of satisfaction curls his trunk easily around the swaying ends, and then the pair of them march off with the log to the stack. Here again almost human intelligence is used, for the foremost elephant marches up and rests one end of the log on the wood stack and then retires, while the "foreman" at the other end of the log pushes it home with great satisfaction—nor will he rest easy if even a few inches of it sticks out.

Can you imagine the scene? All day long, hundreds upon hundreds of elephants, tuskers and otherwise, big and little, are hurrying backward and forward, all bent upon doing their con-

scientious best to get the work done. There is no playing, and no wasting of time; and the celerity and proficiency with which the shifting and carrying and stacking are done has to be seen to be realized.

One amusing thing is that when the luncheon bell rings at midday, and again at three or four o'clock in the afternoon, every one of the hundreds of elephants will drop his log where he stands, and run off trumpeting and screaming with delight like a small boy just released from school.

In many cases these elephants have no attendants at all; but the greater number of them have a mahout to prevent fights over sharing the work. The animals get much attached to their drivers when they are kind to them, but when it is otherwise a tragedy is likely to happen. It is notorious that the elephant has a long memory. Apropos of this, here is a story from the elephant laborers of Rangoon:

A surly little man from a village high up on the Irawaddy some years ago applied for work to a big sawmill in the Burmese capital. It was an establishment belonging to a Liverpool house, and one of the superintendents engaged the man as a mahout to a huge elephant employed in dragging rough teak trees through the forest. Unfortunately for himself, this man was systematically unkind to the animal, and was always goading him with the steel spike which these men carry. Many times did his big mount try to destroy him, and at last after a specially determined attempt the superintendent discharged the man.

He first drifted into the Punjab district; and it was five or six years before he found himself again in Burmah, this time reemployed as an elephant driver in Maulmain. On the first day that his elephant was assigned to him, and on the first trip, the man noticed that at the sound of his voice the animal threw out his ears in a threatening manner. Nothing further happened, however, until the animal had carried his mahout well into the jungle forest, and then without a moment's warning, up and backwards curled the sinuous and sensitive trunk, grabbed the mahout by the hair, planted him on the ground, and in an instant feet and tusks and head had smashed him out of all human semblance. It was proved afterward that by an extraordinary coincidence the doomed man had encountered the elephant he had been unkind to years before.

Both in India and Ceylon the Government, in time of famine, tries to give

employment to the starving people, and at the same time so arrange that these works shall mitigate possible future famines. For this reason great rain-water tanks or lakes are usually constructed with masonry dams, and on this work elephants are also employed in large numbers.

"I never should have believed if anyone had told me the things I have seen these working elephants do," declared one of their managers. "I employed hundreds of them on a huge tank that we were building near Kandy, and the system was something like this:

"A mile or two off was the quarry where the stones were blasted and rough-hewn by means of chisels; and to this quarry the elephants would come in long, lumbering files. They all had to be 'tuskers' because of gathering up the heavy squared blocks of stone in their tusks. You see, they could not have carried these great masses of sharp-cornered flint on so delicate an organ as their trunk. I was never tired of watching them taking up the blocks of stone.

"They would walk all around one, eyeing it carefully to see which was the best way to handle it, then drive the tusks into the ground at the side of the stone and partly underneath it; next pry it up slowly. Before it had time to slip off the sloping tusks, the trunk was wound around it and the stone lifted high in the air, so that all the weight rested on the tusks, the trunk being curled over more for safety than anything else.

"Then began the journey back to where the works for the tank were in progress, and each elephant laborer knew that he had to supply a certain mason with stone. This mason was constantly preparing beds of mortar for the big blocks, and with infinite care the elephant would tenderly lay his weighty charge on this bed.

"But the astounding thing was the anxiety of the elephant to see that his task was rounded off in a neat and workmanlike manner. To my amazement I have seen an elephant, after depositing his block of stone on the bed of mortar, back away a few paces, cock his immense head on one side, and sway his trunk meditatively as though saying to himself: 'I wonder if that block is laid straight on its bed?' And what is more, I have seen these wonderful brutes come back again and again to the block of stone, and give it a tip with their heads here or a push there until they had satisfied themselves and their human partner in the work that everything was 'fair and square.'

Wash-Day of All Nations

From Copyrighted Stereographs by Underwood & Underwood, New York. See Article on Page 21.



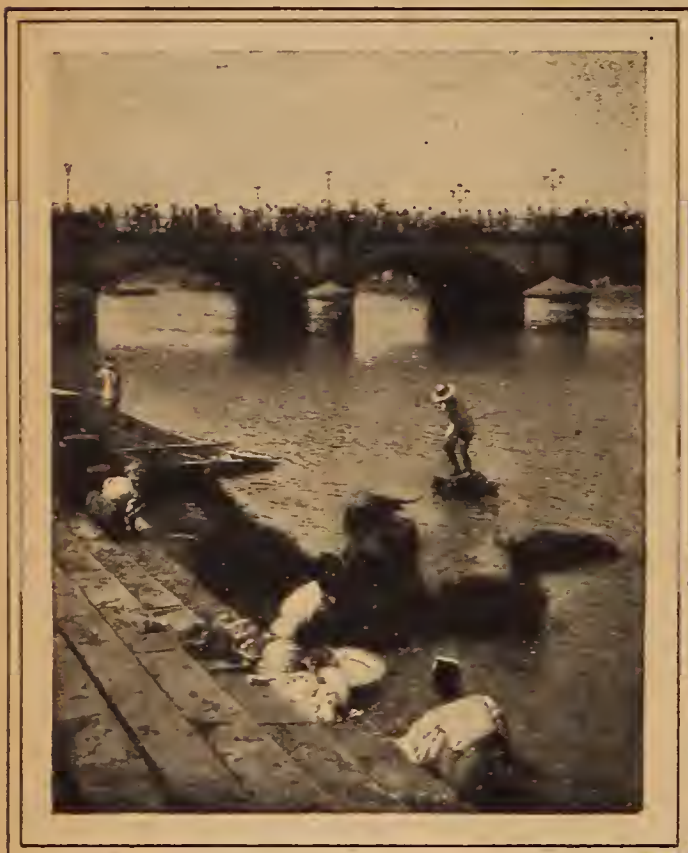
Scotchwomen Washing on the River Dee
One Treads the Clothes, While the Other Wrings Them



A Washerwoman of Yokohama, Japan



Doing the Week's Washing in the Courtyard
of a Tenement-House at Seville, Spain



Washerwomen on the Banks
of the Pasig River, Manila, Philippine Islands



Scene on the Groomti River
at Lucknow, India—the Men
Do the Washing, and Spread the
Clothes on the Shore to Dry



A Laundry in Corea—
the Women are Washing in a Little Stream



Italian Women Washing in a Stream
Near the Callian Hills, Near Rome



A Public Washing-Place in Bombay, India
This is Crowded Every Day with Native Women



Village Women Washing in the Court
of a House in Cana of Galilee

THE weekly wash-day is an institution in our American life, so much so that to many housewives the mere mention of Monday calls up the picture of lines of snowy linen flapping and belling in the sunlight, carefully arranged—such is the innocent hypocrisy of some of us that the ragged or threadbare or faded shall be in the least conspicuous position, while the clothes most easily to be observed by the passer-by make a brave show of thrift and plenty.

Many of us may not have God's clear sunlight and unpolluted air in which to dry the weekly supply of clean linen. In some districts of big cities, if you look skyward on a Monday, you will see in the distance the washings of many families suspended mysteriously "half way" to heaven. The process of getting the garments into the midair is really simple. I am told, when one has the pulleys and ropes rigged for the work.

Whether we live in town or country, in hovel or mansion, we Americans must apply soap and water to our linen at least once in every week, for we might perhaps be short of "changes" otherwise, and it is not only astonishing, but decidedly horrifying, when we learn that in certain parts of France wash-day comes only once in six months, the soiled clothes being allowed to accumulate during that time. On the appointed day most of the housewives of the village assemble at the stream. This incomprehensible custom hardly accords with the generally accepted notion that the French peasants are examples of thrift, for to keep the family decently supplied with clean linen there would seem to be no end to the making of clothes.

The interesting illustrations shown on page 20 of this issue give a very vivid idea of the varied methods employed for cleaning clothes in far-away lands. There are the brawny, buxom Scotch lassies using feet and hands in the process of treading and wringing the garments, which are first well soaped, and later thoroughly rinsed in the water of the Dee. This seems an improvement on the back-breaking process employed by the little Jap with her small tubs. And she makes her work as hard as possible, by always using cold water and rubbing with her bare hands.

All the illustrations show the custom of washing out of doors, which seems to



World's Laundry

How It Is Done in Different Places by Washer Women and Men

be general, at any rate, in the sunny countries. And this meeting together with a common purpose by the side of a clear stream seems to rob the task of half its terrors. Picture the ordinary country kitchen on a Monday, with its hot stove, steaming boiler and tubs, cramped quarters and paucity of running water, and then glance at the presentiments of the wash-days observed by older civilizations. It does seem on the face of it a comparison unfavorable to the American custom.

The illustration in the center, showing the "men-folks" of India doing the washing, also appeals to some of us. However, their method is more remarkable for its energy than for its economy. This is the way they do it: The dhobie, or washerman, twists a prodigious number of clothes into a long, thick rope, which he swings around his head and beats lustily against stones in the stream. The dirt is ejected by this heroic treatment, and the color is likely to follow after due urging by strong lime soap, and sometimes even pure lime. The natives accept this with the serenity born of the ignorance of better ways, but to the foreign sojourner in the "land of Kipling" it is somewhat annoying, to put it mildly, to find one's erstwhile blue, belaced and be-buttoned frock returned from the dhobie clean and smooth, but a dirty, streaked white in color.

The dhobies go from house to house collecting the bundles of dirty clothes, and their great strength enables them to carry so many that before they turn toward the washing pools they appear like huge animated clothes heaps.

In our new possession, the Philippines, the man of the family does the weekly wash, and follows much the same method as that of the Indian above described, but the beating is done perhaps more gently, for the washing is

returned intact and beautifully smooth and sweet, which cannot always be said, alas! of the work produced by American washerwomen.

The use of stones as scrubbing-boards seems unnecessarily destructive, though it appears to be popular in many countries. The quaintly garbed women of Brittany select a stream bordered by shelving stones, and there they chat and scrub in the cool of the day, soaping their linen well, rubbing it with a stiff brush, and finally beating the garments with wooden battoirs.

Although to the casual observer it would seem that the Chinamen in the United States do the larger part of the hand laundry work, it is a fact, as shown by the census, that they constitute only one tenth of all those who wash clothes. There are 385,865 people in the United States who wash clothes, and of these only 21,945 work in steam laundries. All told, there are about 30,000 Chinese laundrymen. In New York City there are altogether 23,000 washer-folk, of whom 4,500 are Chinamen. It is thus seen that the Celestial has a better grip on the soiled linen of New York City than he has on that of the rest of the country. The steam laundries, however, wash out more dirt than all the hands that rub and scrub. There are several companies in New York City which wash nearly a million pieces a week. They wash for the big steamships, the hotels and the office buildings. Such a ship as the "Deutschland" at the end of a voyage fills ten great wagons with napkins, tablecloths, sheets, uniforms and a hundred and one other things. The Waldorf-Astoria and some of the more recent hotels have their own laundries, but the majority pay for each piece. Laundry machinery has been so perfected that it can handle great quantities at a far less cost than the work can be done by hand.

In London, despite all the factory laws, the laundress is still a slave to long hours and unsanitary surroundings. She often works twenty out of the twenty-four hours. In the steam laundries she may have easier and more healthful work, but where there are 216 steam laundries in London there are 578 hand laundries. Of the 47,362 women and children in the business 10,408 toil at home in dark, damp places, where consumption claims most of them for an early grave. In Scotland the women tread on the clothes as do the Hindoos, and in that country also much laundry work is done in institutions of charity or of a penal character, and the profits, which are large, almost wholly maintain some of them. Thus the Magdalene Asylum of Edinburgh realized last year an income of \$44,000 from its laundry work and \$2,400 from all other sources.

Pliny says that soap was first made by the Gauls, and his statement would seem to be corroborated by their descendants. The French have the reputation of washing clothes better and more artistically than any other people. In spite of all the highly perfected laundry machinery in the city of London to-day, the gilded youth of the English capital still send their soiled shirts across the Channel.

Man believed he knew how to wash clothes to perfection, however, long before Rome obtained Gaul and soap. This the traveler in many parts of the world may see even now. In many countries the natives are cleaning their clothes just as their ancestors did centuries before even Rome was founded. In Mexico, for example, the half-breed women scrub the ponchos of their husbands as did the Aztec wives in the days when geologists say the so-called New World of to-day was the old world. They go to a river or pool where there are large flat lava stones just cropping out of the water. Soaking the blankets in the water the women spread them out on the stones and beat them with the roots of the cactus until the juice of the plant is pounded into a sort of suds. Along with their husbands' garments the wives wash their own, which they have removed at the beginning of their task. Then spreading the clothes on the bushes the laundresses disport themselves about the river bank until the washing is dry.

The Strange Adventures of Helen Mortimer

[CONTINUED FROM PAGE 15]

"Then the three talked together so low I could not hear what they said, although with the prospect of getting out of the place, I had ceased crying and was attentively listening.

"Presently that detestable woman came over, and put her hand on my shoulder, saying with an effort to be kind, 'Don't cry, my dear. It is all over and you will be seen safely home. It is too bad you have had such a hard time, but you see you were perfectly safe here, no one would have hurt you.'

"I drew away, for I couldn't bear her touch, and the scent of that perfume I had detected in my stateroom, and which still clung about her.

"Put these on," she said handing me a pair of black spectacles.

"What for?" I demanded filled with terror of some new trap being laid for me, 'I shan't put them on!'

"Oh yes, you will," she said calmly, 'unless you wish to remain another night and day here.'

"I got up and turned to the men, who were getting my things together.

"Would you mind telling me why I am required to wear these glasses?" I asked.

"For reasons of mine," returned Morris gruffly. 'If you object to wearing them, of course, you will not be forced to do so, and may remain on here indefinitely as my guest.'

"No doubt I was very stupid, but the idea of putting on those awful things was horrible. They were like automobile goggles, only the glass was black, and hooded on all sides with black linen so that any one wearing them would be totally blindfolded. I was sure it meant they were going to lead me into some subterranean dungeon, and leave me there to die. In the state of mind I was then in nothing seemed improbable, and I simply refused to wear them.

"Very well," said Morris sitting down at the table again, 'if you prefer it here, you are very welcome to remain!'

"Meanwhile Worrendale had come around to where I stood, and said confidentially, 'Put them on, Miss Mortimer, this may be your last chance of getting away for a week.'

"But tell me what they are for?" I appealed. 'I can't understand why I should be asked to wear such things!'

"If you consider, you will find it easy to understand," he returned. 'Naturally we don't want you to remember where you are!'

"Of course, you two probably guessed at once what they were intended for, but if you felt as I did then I think you would have been as dense as I was. Even when he had told me this I was in terror as they fastened the things on me, and led me out of the house by a way that was certainly not

the one by which I had originally entered it, for we went down a flight of steps to a cold and damp sort of hallway that smelt like a cellar. I could see nothing, and only knew when we were out in the street by the colder air, and the sound of our foot-steps on the pavement which echoed loudly, as they do in narrow and deserted alleyways. We proceeded in silence and turned two or three corners, then paused, and Morris said, 'You may take them off now, and tell me where you want to go.'

"I obeyed quickly, and found we were at the mouth of a very narrow, dark street leading into a wide, well-lighted one, down which we turned and walked a block or two and Worrendale hailed a cab. I did not know where to tell them to take me, for I knew Mrs. Pancoast was likely to be at the house at Princes Square, Bayswater, and I did not feel able that night to undergo the ordeal of seeing her. However, it seemed the wisest thing to do, but I gave the Queen Anne Street address first so they would not suspect I had found that telegram, and when safely in the cab alone, I directed the coachman to the other.

"Oh, the delight I felt when that door was closed, and the cab started! I sank back in the corner, too exhausted to even think of anything but the comfort of being rid of those hateful people. I should have liked to have remained in it the entire night rolling softly through the gloomy, peopled streets and not caring in the least where I might be going to.

"When I at last arrived at my destination which must have been at the furthest extremity of London, I learned, almost as much to my disappointment in one way, as to my relief in another, that Mrs. Pancoast was not there.

"She had come to inquire for me, and, on hearing I had not been there even to get a cable she had sent to notify me of her coming, had departed without leaving either word or address. The landlady was decidedly brusque in her manner, and said that the "person" who had come to ask for me had acted "most oddly," and was so excited she would not have had her under any circumstances; and added significantly that she usually required references from those she received into her house. I told her I was very tired, and being a stranger in London, knew of no place to go, but she was as hard as flint, and insisted that she had no room, so I was obliged to start out again into the night. I directed the coachman to the place where I had engaged the hall room, as you will remember, the day before, which address I fortunately had not forgotten, although I had lost it with my purse. The landlady, still smelling of gin, and red-nosed, welcomed me quite graciously, which was a pleasant change after my experience with the others; she even paid the coachman for me, when I told her I had no English money but would get some early the next morning.

"Well, I can tell you, girls, that little room was like a paradise of peace, in spite of my hazardous position with limited funds, and no chance of finding Mrs. Pancoast, who most probably would believe I had gone off with her trunk, and might put detectives on my track. I was so tired out, I gave no thought to anything but the comfortable fact that I was to enjoy a short respite from the menacing elements that have haunted me ever since I left New York, and, much to my surprise, slept like a top without even dreaming.

"I awoke early, and feeling much refreshed, tried to plan out what I should do. I now had not sufficient money to return to New York, even second class, and the fear that Mrs. Pancoast would do something to publicly disgrace me before I could communicate with her, egged me on to plan some means of finding her.

"Well, I dressed and went down to breakfast, not feeling shy as I had at the other house, for there was the comfort of knowing I should be in an entirely new element, and among people who could have no reason to be suspicious of me.

"There were only six persons besides myself, all women, as usual, and mostly old save one, who was a strange-looking creature about fifty, well dressed, with jet black hair that looked like a wig, and wearing gold-rimmed glasses. She spoke very graciously to me, asked my name, which I was almost ashamed to give, and introduced herself as Mrs. Featherstone. She was really so nice, I told her I had lost track of a friend in London, and asked her advice as to how I should be able to trace her.

"She suggested my putting an advertisement in the paper, and when I said I feared my friend would not like the publicity of that, she proposed taking me to Cook's and the foremost bankers, in an electric cab, which was to come for her at eleven.

"If you are sure your friend is in London, it is very probable you can find her by inquiring at these places," she said. 'At any rate it is the only way open to you, unless you advertise.'

"She spoke with a slightly foreign accent, but there was something about her I liked very much, and I felt no qualm of hesitancy in accepting her offer."

"I can't tell you how nice it was driving through London in that lovely electric open brougham, bumping softly over the ruts as though we were on a feather bed. I felt like a princess, and Mrs. Featherstone is quite a charming woman, and so interesting to talk to! She is an Italian by birth, and was married twenty-five years ago to an English officer who died in India, and evidently left her quite a fortune, for she does not mind spending money, lavishly, it seems to me. After we had visited the three prominent banks which she said Americans generally patronized, and made inquiries at Cook's, and also at the American consul-general's, without finding any trace of Mrs.

Pancoast, she took me to lunch at the quaintest little ladies' restaurant on Bond Street, the prettiest place of the sort I have ever seen, all decorated in pale green, with little tables served by the daintiest looking maids, wearing white poke-bonnets, and frilled aprons.

"Only the most fashionable looking women came in, and it was fascinating to watch them, and hear their sweet, distinct voices. It is too funny, the way these English people discuss their private affairs in public places! I heard one woman who was beautifully dressed, and looked like an affluent society leader, telling her companion she had not spent three pounds on her clothes in a year, as this friend and that had kept her so well supplied with gowns they had brought from Paris, and did not like. Imagine an American woman speaking so openly of such matters! She did not seem the least bit ashamed of it, and laughed gaily as she recounted how a man she knew had taken her for someone else at a ball, because she was wearing a gown that had once belonged to the person he took her for! The absolute naivete of it was delightful, and so refreshing! There doesn't seem to be a bit of false pride about the English, and Mrs. Featherstone tells me that she has several friends who save all living expenses by visiting from house to house, where they are always welcome. I wish I could have a few such opportunities! I do so love refined people, and hate the half-cut set one meets at cheap boarding-houses.

"After luncheon we drove through Hyde Park, up and down Rotten Row, which is the fashionable drive, and it was most interesting. There was a great crowd gathered at the Knightsbridge entrance, and when I asked Mrs. Featherstone what it meant, she said they were probably waiting to see the Queen, who was in town on account of the fête that is going on; and, later, her carriage passed close to ours. I had a very good view of her, and was surprised to see how young and good-looking she still is. Mrs. Featherstone says she is all made up, but if that is so, it is so well done no one would suspect it.

"Of course, this it not the best season to see London, and Mrs. Featherstone said if it were not for the fête,—the celebration of some royal person's birthday, I have forgotten whose she told me it was—London would be quite dead; and even as it was, it could not be compared with the spring season. But I enjoyed it immensely, especially while we were driving, for in the restaurant and other places we stopped, I was in constant dread of seeing Mrs. Pancoast, or being spied upon by detectives whom I am in continual terror of, for I cannot believe that woman means to let me escape with the trunk she values so much, and which she must think I have deliberately gone off with since she cannot locate me.

[TO BE CONTINUED NEXT ISSUE]

Good Color Schemes for the Home

BY MABEL TUKE PRIESTMAN.

NOTHING, perhaps, goes so far to make or mar interior as the use or abuse of color, and yet we see all around us an utter disregard of the laws of harmony.

Color is stimulating, depressing, enervating or uplifting, and some are irritating.

Many persons are totally unconscious of the effect color has upon them, and some are not nearly as sensitive as others, but the fact remains, and if these truths are remembered more harmony will be brought into our homes. We cannot be guided by fashion in these matters, but the understanding and blending of color will do more than hundreds of dollars spent in renovating without knowledge or forethought.

Take, for example, red. This is a color that should be used judiciously and for accent rather than in large masses. Nature is the best teacher; she invariably uses the brilliant colors sparingly; the red berries on the trees, the red touches in the autumn leaves. Red is an assertive color, and not restful, therefore use it in moderation. Certainly, red touches in an Oriental rug improve it, giving it a warmth and accent needed in most rooms of strong colorings.

Green can be used very generally, as it is a color full of rest and repose; here again Nature teaches us this lesson, for green is the color of all colors she has chosen.

Keep the color schemes simple, considering the special needs of each room, and the relation they bear to each other. Study Nature and look often at good paintings, and get the color scheme and color harmonies imprinted on your memory.

As color plays so important a part in successful home-making, the blending of harmonious tones must be most carefully considered. A room must not be too light nor too dark: must not be all in one color, but blended in such a way that a feeling of harmony is felt and enjoyed.

Overcrowding is a very common occurrence. Have useful and beautiful things in your rooms, but do away with the little trivial meaningless things which mar the effect of a room as a whole.

Much depends on how the room is arranged. Let there be a reason for the placing of every chair, table or sofa. Pictures must be placed not only with regard to the light, but suited to the color and tone of the room. Flowers must be placed on tables and stands in the rooms, not looking out of a window behind a pair of lace curtains. Books must be put in a place of easy access; they are there to be read. If the aim of the home-maker is to have the home express harmony, comfort and simplicity, the beauty of color and form will naturally follow.

It is quite possible to furnish an artistic home for eight hundred to twelve hundred dollars, but this can only be done by ruling out many things which some people think essential. To begin with, a list must be made of the things absolutely needed.

The following list would be found sufficient for an average home:

For the living-room:—Stained and waxed floors, with some rugs; built-in bookcases, holding plenty of books; table of simple construction, three comfortable chairs, a few side chairs bought gradually, and a built-in seat that will accommodate an extra number of visitors. An open fireplace will need iron or brass andirons.

A few good pictures and casts, and some decorative pottery.

A second table on which tea could be served would be necessary.

Homemade sash curtains.

For the dining-room:—Stained and waxed floor and a large rug, a Royal Wilton or hand-woven fabric rug in soft colors would be serviceable. Table and chairs, built-in plate shelves, serving table, homemade sash curtains.

For the bedrooms:—Matting for floors or inexpensive hand-woven rugs on stained and waxed floors, plain iron beds with springs, and good hair mattresses; bureaus, washstands, dressing table draped with chintz; quaint little tables also covered with chintz; small tables, homemade curtains of swiss or scrim.

The house will not look bare with such a beginning. By degrees more can be added which will keep up the interest and pleasure of home making for years.

The following list may be added gradually as funds increase:

Really good Oriental rugs, fine table and bed linen, silver, good couch, piano (if musical), well-designed library



The Housewife

table, sideboard, additional books and bookcases, portieres, pictures, old brasses, plenty of palms and ferns.

Many delightful bits of furniture can be devised to supplement the first list. Instead of a sideboard, built-in shelves with glass doors and closets underneath can be fitted into a recess or across a corner, and will answer for sideboard and china closet. A few shelves placed one above the other in another corner gives opportunity for

table. This simple Colonial room has a very attractive mantelpiece, and here an array of Japanese tea-pots hung on screweyes introduce a strong note of blue. The homemade device for holding an extra log is worthy of imitation. The wall paper cost only fifteen cents, and can be obtained in blue on a white ground, in red on a white ground, and in green and red, all of the colorings being equally attractive. A very pretty blue-and-white dhurrie covers the floor,



BLUE CHINA PLAYS AN IMPORTANT PART IN THE DECORATION OF THIS DINING-ROOM

the display of some pieces of china with cups hanging by their handles. A few pieces of old pewter can be picked up cheap, and are always decorative in a dining-room.

With a good carpenter, and some well-seasoned lumber, high back seats, and book shelves can be fitted into suitable places, giving individuality to the rooms in which they are placed. They should be stained or painted to suit the woodwork of the room.

The walls must be unassertive. They are only a background, and in a small house one color scheme should be adhered to, as it gives a feeling of spaciousness not attained by having each room a different color.

A green library should have touches of blue, while a blue dining-room should have the touches of blue brought out in Japanese china. Our illustration shows a corner of a blue-and-white dining-room. The cheapest kind of blue-and-white china is placed on the shelves, giving a decorative touch to the room, while some good pieces of Canton china are in the glass closet; this is a very attractive piece of furniture consisting of an old-fashioned mahogany table with part of a closet placed above it. These were picked up for very little money at some country sale. The chairs are old fashioned and are of good design. The bride often partakes of lunch when alone at the little table rather than use the dining-

while a recessed window has a seat covered with blue denim cushions.

The hall could be papered with a green felt paper or one of the new two-toned green papers which are even more serviceable. A little table near the door, and a well-designed chair would be all the furniture necessary for the hall, providing that there is closet room for coats and hats.

Another attractive color scheme if well carried out would be to have the parlor in old rose. A plain felt paper or two-toned paper would form a nice background for pictures. The white woodwork should be painted ivory, floors stained brown or soft green. The portieres could be of a deeper shade of old rose; the furniture covering should be of mixed material introducing green and old rose. Eastern rugs would be the best choice with this scheme, and mahogany furniture.

For the living-room a gobelin-blue burlap would be suitable if the furniture is oak. Use portieres of golden-brown arras cloth. Unbleached muslin dyed to match the portieres could be used for inner curtains, and be stenciled with a design in deep blue. The same motif could be stenciled on the portieres. With this scheme ivory paint, light oak or chestnut, stained brown would any of them be appropriate. A dull gold paper might be used for the dining-room. There is a very pretty shade between a tan and a yel-

low in the silk felts. A brown and green rug would be pretty, and would be suitable with almost any style of furniture.

If the house is dark have the hall yellow, as this color introduces the feeling of sunshine. If the hall is light a shade of old rose, several shades deeper than the colors in the parlor, in fact, almost a Pompeian red could be used.

BLUE BEDROOM

Some of the blue and white papers are in Colonial stripes while others are well covered in Japanese style of design. Blue-and-white gingham curtains are very quaint, providing the check is nearly an inch square. Hand-woven blue-and-white rugs would be very attractive in such a room, and would look well with either white-painted furniture, maple or mahogany.

ROSE BEDROOM

Some of the prettiest papers have green leaves and pink flowers. With a pink and green rose paper, a green carpet, chintz hangings to match the paper, plain green furniture covering, would be appropriate with mahogany, walnut, or oak furniture. Another rose and green paper could be carried out by having the prevailing tones of the room matching the deep pink of the flower; have plain denim curtains, hand-woven rugs and green painted furniture.

LAVENDER BEDROOM

Some of the prettiest new papers can be found among the lavender shades, and as green leaves are almost always introduced, the green must be brought out. A Brussels carpet rug, or Wilton velvet rug or any of the new hand-woven rugs could be used for floor covering. Plain green hangings in denim or linen would be very effective if used with maple or mahogany furniture.

While color schemes are so important in good home-making, it is after all the little womanly touches that make the home complete. Clean and dainty curtains in the bedrooms, dressing-tables with dainty appointments, pins in the pin-cushions, matches in the match safes, waste-paper baskets in every room; these are the little things that add much to the comfort and beauty of the home.

Beef Scraps

BOILED TONGUE—Clean and scrape the tongue while fresh, curling it up in a large kettle. Boil moderately until done, which usually takes four or five hours. Set the broth aside and when cold take off the fat. This broth is excellent for rice or noodle soup if the fat is removed, though most housekeepers throw it away. Allow the tongue to get perfectly cold after skinning it and then cut in thin slices. May be served with catchup or any cold sauce, or with hot egg sauce highly seasoned. Fine for sandwiches.

POTTED TONGUE—Proceed as for boiled tongue until the meat is skinned and cooled. Have as little liquor left when done boiling as possible, and skim it after cold. Reheat the liquor and save one pint of it. Add one pint of vinegar, whole spices tied in a thin bag, (one tablespoonful of mixed spices) and salt and pepper. Cut the tongue in thin slices and pack in a deep crock. Bring the broth and vinegar to a boil and add the spices. Cook half an hour and pour over the cold tongue.

PICKLED OR SPICED TONGUE—Cook and cut the tongue into thin slices as for potted tongue. Make a sweet pickle with vinegar, sugar and spices to taste, adding a few whole cloves. Boil the pickle and pour over the sliced tongue. May be pickled whole, but is not as good.

BEEF STEW—Select small lean scraps of beef and cut into inch-square pieces. Add potatoes and turnips cut into small blocks, and bake all together in a closely covered crock in a slow oven three or four hours. Add a lump of butter, with salt and pepper, but no water. Carrots may also be added. Dish the meat and all in a vegetable dish and add sufficient hot water and thickening to the stock in the crock to make gravy.

BEEF LOAF—Select bits of lean meat and run them through the chopper. To two pounds of ground beef add two slices of (ground) bacon, twelve rolled crackers, two well-beaten eggs, and salt and pepper to taste. May also be seasoned with finely chopped onion, celery seed or a little good catchup. Use enough sweet milk to make into a loaf, and bake two hours, basting frequently with the hot water and gravy in the pan. Use only enough water in the pan to keep from burning.

HILDA RICHMOND.



DISCUSSING THE NEWS IN A WHITE COUNTY, ARKANSAS, HOMESTEAD

Lace For Pillow Slips or Scarfs

MAKE a chain of sixty-four stitches. First row; make a tr in ninth st of ch from hook. Now make a space of ch 2, miss 2, a tr in next, make two more spaces, then make a tr in each of the next 6 st. * miss 2 st and work a long tr (thread over hook twice) in next st, ch 8, and fasten with a s c in same; now work along in the next 10 st in s c. Ch 3 for a tr. 6 tr in 6 st. Repeat from * once.

Second row; ch 10, begin in second st from hook and work back 7 st in s c; the remaining 2 st of this ch stand for a tr. Miss the last tr made in previous row and work 6 tr on the next 6 tr. * ch 7, now wind the thread three times over the hook, insert the hook in the third st from the one the ch 8 was fastened and work off two loops twice, then catch in third st of ch 8 (counting from the place of fastening), draw the thread through the st and through one loop on hook—pull tight—next work off the two remaining loops on hook, ch 2, fasten with a s c in the center of the 5 st of ch 8, ch 2, 7 tr on 7 tr. Repeat from * once. Finish with four spaces, working last tr in third st in ch at end.

Third row; ch 5, a tr on second tr, make five spaces, 6 tr in 6 st; repeat from * in first row to end.

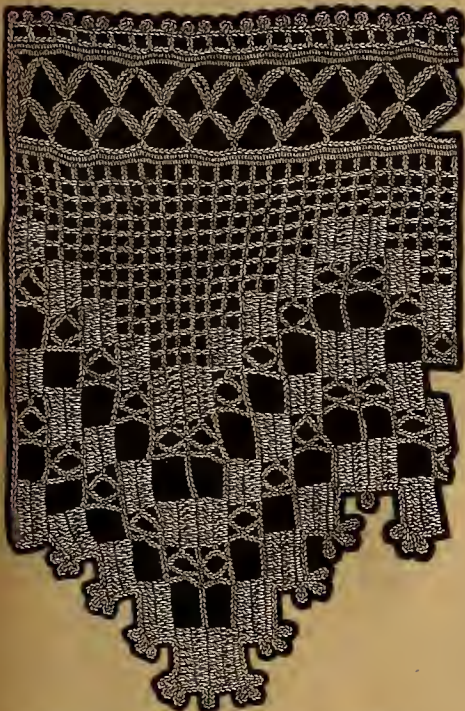
Fourth row; like second row, finish with six spaces.

Fifth row; same as third row except that eight instead of six spaces must be made.

Sixth row; like second row, finish with eight spaces.

Seventh row; like third row, make ten instead of six spaces.

Eighth row; like second row, finish with ten spaces.



EDGING LACE FOR PILLOW SLIPS OR SCARFS

Ninth row; same as third row, make twelve spaces.

Tenth row; ch 3, miss a tr, 6 tr on 6 tr. Repeat from * in second row, finish with twelve spaces.

Eleventh row; same as third row, make twelve spaces.

Twelfth row; same as tenth row, finish with twelve spaces.

Thirteenth row; like third row, except that ten instead of five spaces are made. The scallop now decreases.

Fourteenth row; like tenth row, finish with ten spaces.

Fifteenth row; like third row, make eight spaces.

Sixteenth row; same as tenth row, work eight spaces.

Seventeenth row; same as third row, work six spaces.

Eighteenth row; like tenth row, finish with six spaces.

Nineteenth row; like third row, make four spaces.

Twentieth row; same as tenth row, work four spaces. This completes one scallop. Start the second scallop this way: Make four spaces, 6 tr on 6 tr, then repeat from * in first row. Now repeat from second row to the required length of lace. Finish the lower edge thus: Fasten thread in the tip of the first small point of the scallop and work closely along the edge in d c at second point; * ch 5, fasten with s c in tip of point, repeat from * twice. So continue working d c in edge and making three picots in each of the eight points of scallop and one picot in center of scallop, also one picot between the scallops, as shown.

BORDER

Fasten the thread in one end space of the upper edge and work 1 d c on every tr, and 2 between all tr.

Second row; a d c in every st of row. Third row; ch 11, miss 6 st, fasten with a d c in next, repeat to end of row. Fourth row; ch 11, fasten with a s c in the d c of preceding row. Repeat to end.

Fifth row; ch 11, fasten with a d c in center of the two chains of previous row. Repeat.

Sixth row; like fourth row. Seventh row; ch 6, fasten with d c in center of the two chains, taking both ch together.

Eighth row; make a d c in every st of row. Ninth row, same as eighth row.

Tenth row; ch 5, miss 2, a tr in next, * ch 5, fasten with a s c in top of the tr just made; ch 2, miss 2, a tr in next, repeat from * to end.

MRS. J. R. MACKINTOSH.

Winter Puddings

PARADISE PUDDING—Pare, core, and mince very fine, three large, tart apples; mix with them one fourth of a pound of bread-crumbs, four tablespoonfuls each of sugar and carefully cleaned currants, the rind of half a lemon and the juice of a whole one, a pinch of salt, and a little grated nutmeg; moisten the mixture with three eggs, well beaten, stir in two tablespoonfuls of melted red-currant jelly, put the pudding in a buttered mold, and tie it down with a floured cloth. Boil one hour and a half, and serve with lemon sauce.

EMPEROR'S PUDDING—Boil half a pound of rice in plenty of slightly salted boiling water until almost done, drain off the water, just cover the rice with milk, and let simmer in a double boiler until perfectly soft. Add two ounces of butter, three well-beaten eggs, sugar to make as sweet as desired, and cook a minute or two longer; then remove from the fire and flavor with vanilla. Line a pudding-dish with puff paste, put over this a layer of rice, then a thin layer of the paste, and alternate these layers until the dish is full, having the last layer of the puff paste. Serve hot with whipped cream.

POTATO PUDDING—Mash half a pound of hot boiled potatoes until perfectly smooth and free from lumps. Boil the thin rind of a lemon until tender and beat it to a pulp. Beat together one fourth of a pound of powdered white sugar and three ounces of butter, add three well-beaten eggs, the potatoes and lemon peel, a little grated nutmeg and the juice of a lemon. Beat well, and turn into a pudding-dish lined with puff paste. Bake in a moderate oven for three quarters of an hour.

HONEY PUDDING—Boil together for five minutes one pint of milk, six ounces of white sugar and the thin yellow rind of a lemon; then stir in six eggs which have been well beaten with half a cupful of milk, take immediately from the fire, and strain. Line a shallow pudding-dish with puff paste a quarter of an inch thick and the edge with paste half an inch thick. Mix three ounces of honey with half a glassful of rich preserved apples or apricots, and pour it in the bottom of the dish, strew over it one fourth of a pound each of carefully cleaned currants and desiccated cocoanut, then gently pour in the custard, being careful not to disturb the mixture in the bottom, and bake in a moderate oven to a light brown.

BOILED BREAD PUDDING—Fill a buttered pudding-dish with slices of bread, with the crusts removed and each slice spread thickly with strawberry, gooseberry or peach jam. Make a custard with one pint of milk, one tablespoonful of corn-starch, one egg, and two tablespoonfuls of white sugar. Pour it over the bread, let it soak for one hour, then tie down over it a floured cloth, and boil steadily for one hour. Serve with any preferred sauce.

FIG PUDDING—Chop half a pound of well-washed figs very fine, and mix with them one fourth of a pound of moist sugar, a tablespoonful each of milk and molasses, two cupfuls each of sifted flour and finely chopped suet, three eggs, and a little grated nutmeg. Turn the mixture into a well-buttered pudding-mold, tie a floured cloth over it, and boil steadily for four hours. Serve at once with lemon sauce.

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Corn Muffins

THREE eggs, one half a cupful of lard and butter mixed, one half cupful of sugar, two and one half cupfuls thick milk, one teaspoonful of salt, two cupfuls of corn-meal, one cupful of wheat flour, one teaspoonful of soda. Bake half hour.

Veal Roll

ONE pound of veal for small roll, season with salt and pepper, one egg, lump of butter, twenty crackers rolled, veal ground up fine, mix all together and bake in oven, spread butter over top and bake one hour.

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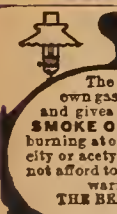
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No. 864—Chemise with Handkerchief Yoke

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, six yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material, with two handkerchiefs and two and three fourths yards of lace for trimming

NOVELTY and yet simplicity are combined in the little dress shown on this page in pattern No. 862. It is made so that the revers may be turned back to show the vest, or worn buttoned over, giving a double-breasted effect to the dress. Such a little frock is sure to appeal to every mother who is anxious to have a bit of originality enter into the clothes which she makes for her small daughter. The dress has deep plaits on the shoulders, back and front, and is made with wide revers and a tucked vest. The neck is cut square in the front to show the vest. The full sleeves are tucked at the wrist, and finished with a flaring cuff. The skirt is kilted with a box plait in the front and inverted plaits at the back.

Kersey cloth, tweed, reversible cloth, and a heavy serge are all good materials from which to choose in making the boy's overcoat illustrated in pattern No. 863. If a very thick coat is desired, astrakhan cloth or bear cloth are desirable materials. The coat is single breasted and loose fitting. It has three nice pockets, and is finished with a turn-down collar and lapels.

In making the chemise illustrated in pattern No. 864, be sure to select very dainty handkerchiefs. The hand-embroidered French handkerchiefs with the design in white are the prettiest. However, a lace-trimmed handkerchief will look attractive and cost much less.



No. 862—Dress with Revers

Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, three and one half yards of thirty-six-inch material, or two and one half yards of forty-four-inch material



No. 826—Corset-Cover with Peplum

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, two and three fourths yards of twenty-two-inch material, or one and one half yards of thirty-six-inch material, with three and one fourth yards of beading and four yards of lace edging. This corset cover has a tucked and fitted back, with a full gathered front



No. 863—Boy's Overcoat

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, three and one half yards of thirty-six-inch material, or two and one half yards of fifty-four-inch material, with three eighths of a yard of velvet for collar

PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the number and size of the pattern desired. Our new winter catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

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No. 842—Cutaway Coat with Capes

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five and one half yards of thirty-six-inch material, or four and one half yards of forty-four-inch material, with five eighths of a yard of contrasting material for vest and collar

No. 843—Band-Trimmed Circular Skirt

Pattern cut for 22, 24, 26 and 28 inch waist measures. Skirt round length, 42 inches in front. Quantity of material required for medium size, or 26 inch waist, seven and one half yards of thirty-six-inch material, or five and one half yards of forty-four-inch material



No. 865—Nightgown Buttoned on Shoulders

Pattern cut for 32, 36 and 40 inch bust measures—small, medium and large. Quantity of material required for medium size, or 36 inch bust, ten and one half yards of twenty-two-inch material, or six yards of thirty-six-inch material, with eight yards of lace for trimming

Copyright, 1907, by The Crowell Publishing Company. Send Orders, Giving Pattern Number and Bust Measure, to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, N. Y. Write for Catalogue of Our Fashionable Patterns, Sent Free on Request. The Price of Each Pattern is Ten Cents to Subscribers.

The New Year

A HAPPY NEW-YEAR!" What assets of fortune may be yours and mine in the next twelve months we cannot guess, much less forecast; but we hope for good times and successful enterprises, for ships to come sailing into harbor with the freight we have longed for, and for pleasure and gladness unalloyed. In the home may there be peace; in business, encouragement; in every relation of life, stability. Each household knows what it most desires, and the aspirations of each individual have a touch of personality unsuspected by others. May we all have a happy New-year.

We shall have as a certainty twelve months in our New-year, and four seasons. Ever since little Persephone was whisked away from the bright green earth to the black underground palace of King Pluto, where incautiously she ate six shriveled pomegranate-seeds, the world's year has been, more or less, cut in two. There is the vernal season, gay with flowers and processional with buds and fruit and grain, until it loses itself under the harvest-moon; and there is the wintry season, when the fields rest, and the trees are bare, and Nature turns on her pillow for a nap, while the snows fall and the winds rave. Spring and summer go hand in hand, and as they leave the stage, autumn and winter hand in hand come on by the opposite entrance.

I don't think we are half grateful enough to our Creator for the variety of scene-shifting and the charm of novelty that inhere in the panorama of the seasons. You hear a girl exclaim, shivering on a cold morning of January, "If only I could drop this miserably cold weather out of my year! I'd like to omit winter from the calendar! If I were rich I'd never stay and freeze in this zero temperature!"

She is a girl of 1906, and she lives in a most comfortably appointed house with stoves and steam-heat, storm-doors and double windows! She will enjoy spring, when it comes, a thousandfold more than if she had known a perpetual springtime, and had not been braced up and toned and keyed to concert-pitch by clear cold days and the purity of the snow blanket that kept the next year's bread so safe and warm.

THE NEW-YEARS OF THE PAST

Senator Hoar in his delightful autobiography gives us some glimpses of home life as our forefathers knew it. Less than one hundred years ago well-to-do people in America had no water-pipes in the house, and no provision for discharging sewage. People rose and dressed on a New-year's morning in the early nineteenth century in a cold room, with frost on the panes, and zero temperature creeping in through the cracks and crannies. They broke the ice in the pitcher to wash their faces.

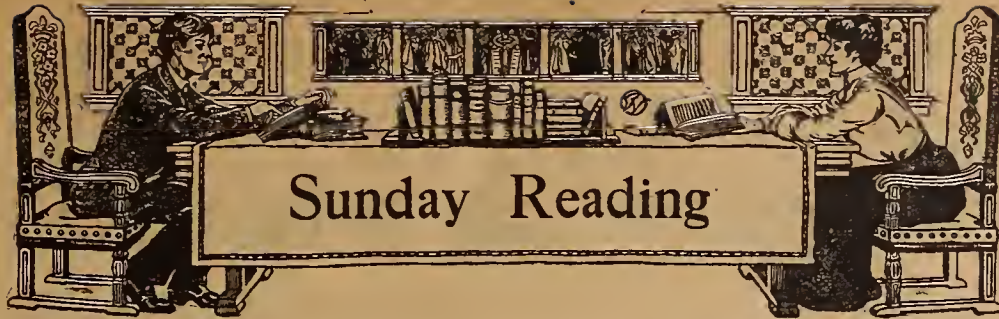
As there were no matches then, the fire was carefully covered up at night, and whoever first came down-stairs in the early dawn obtained a light by holding a candle-wick close to a live coal and puffing it with his breath. No lamps, no electric burners—or gas-jets, no telephones, no luxuries, and not even much comfort. Then the warmth of a house, and its cooking, too, were dependent on a roaring open fire on the hearth, before which the face was baked, while the back was icily cold.

On the whole, our twentieth century has made a good advance, and we have an environment that must surprise the ghosts of our grandparents, if ever they venture invisibly to watch us, as we sit in our cozy rooms, and to our shame dare to grumble over trifling discomforts.

HUMAN NATURE MUCH THE SAME

But though the outward circumstances change, human nature remains the same, while the years tread on in their unending march, like veiled dervishes, bringing weal and woe impartially to mankind, and caring not for either mirth or moan.

They did not know what nervous exhaustion meant when they huddled around an open fireplace by day, and slept in a room as cold as an Adirondack forest by night; but presumably there were faultfinding men and nagging women then as there are now. Some of them made the great mistake that some of us are making now, of killing home happiness by an everlasting much ado about nothing. If we are candid with ourselves we must admit that we do make mistakes. We send off foolish or angry letters, then wish we could get them back. We make a fuss because the wrong young man comes to call on our pretty daughter, and through our meddling opposition, the young people, who had not been the least in love, are suddenly convinced that they two, and no other, have been meant for partners since the beginning. We marry, and we fall out with our relations-in-law. We



waste our energy over trivialities, and have no strength left for great occasions.

I knew a woman who devoted herself one year to a wretched sort of thing called spatter-work, while her children went to school with garments literally tattered and torn. I knew another who stitched her eyesight and her temper and her health into an elaborate screen to stand in her living-room, and then spent six months on her sofa as a worn-out invalid. I know yet another who is a martyr and a slave in one to her perfect and inflexible system of house-keeping, which is inelastic and of cast-iron, and in consequence she and her family have not had a decently tranquil, to say nothing of a happy, New-year in the memory of any of their neighbors.

DON'T FRET OVER THE INEVITABLE

It is inevitable that we shall make mistakes. Errors cannot be prevented—errors of judgment or decision or of action. If we do our best at a given moment, we must let the event justify our wisdom or accentuate our folly without too much useless lamentation. We are fallible and we shall make mistakes. But we are not making them on purpose, and so we are not to grieve when it is too late, let occur what may. If we had not sent little Eunice to school last summer she probably would not have caught the whooping-cough, and if we had not bought the new house we should not have had to mortgage the old one. If we had kept our wits about us we would not have jumped from the carriage the day the horse ran away. If we had only said no instead of yes one day long ago, or yes instead of no, our whole lives would have been different. In this uselessly confusing round we may circle without ever arriving anywhere. So long as time endures, history will repeat itself, and there shall be wasted endeavor and a sense of disappointment in some parts of our life.

The Queen of Hearts she made some tarts
All on a summer day.
The Knave of Hearts he stole these tarts,
And took them quite away.

But the Queen had the fun of making them,
and let us hope they gave the Knave a touch of colic!

MOMENTOUS YEARS

Of course, the divisions of the calendar are purely arbitrary, yet they are extremely convenient. It would be much harder to remember and separate from one another the exceptional years of great joys or great griefs if we went on in an eternal dead level without milestones. Occasional years stand out in memory like mountain peaks in a landscape. No woman ever forgets her wedding-day or the day that she first looked in the face of her darling eldest child. None of us ever forgets a great calamity. Thank God, the calamities are few as compared with the multiplied days of unalloyed delight. The happiest times in home life are those which are filled with commonplace incidents—the children growing up and going to school; the man of the house going to business and returning at nightfall; the mother busy with the nameless little things that fill her cup with sweetness until it runs over the brim; the neighbors coming in, and the household progressing according to its ordinary routine.

The momentous years are not unlike the commonplace years. Looking back, we are impressed with the fact that the road, after all, is a pleasant one, and that the light heart takes it cheerily.

THE NEW-YEAR IN THE COUNTRY

To the farmer's wife and the woman who lives in a little town or village January means something worth more than it can to her city cousins. A time of great activity in church life sets in with the New-year, and as much of the life of a village revolves around the several churches, the women see more of one another and are brought into closer touch than at other seasons of the year. The days are short, but they afford leisure for reading and sewing. Many a book that has been kept on purpose, that it may be enjoyed during the long winter evening, is now read aloud beside the evening lamp. Family life converges to a center. Home never

means so much as when some of the rooms are closed until cold weather is over, and the circle gathers in the pleasantest room, where there are genial warmth, sunlight, flowers and cheer. One such living-room I think of, deep in the heart of the Catskills—a room in summer filled with city boarders, who are grouped about its tables. In winter it is no longer a dining-room for strangers, but is the family living-room, with bright rugs on the floor, the piano at one end, a large table in the middle, and wonderful plants thrifty and blossoming in the sunny windows. From homes in the country come the men and women who are the brain and heart of this nation, and they grow and thrive as the plants do in the atmosphere of simple homes apart from crowds. May all such homes find 1907 the happiest of happy New-years.

Some provision for cheer should be made in every home with as much forethought as provision is made for food and fuel. For example, it is good economy to lay in a stock of games in which the whole family may have a share. Lest we become too self-centered, we should encourage the young people to have neighborhood socials, and even though it require a little effort and a little courage to go out of our own homes to those of others on winter nights, the effort should be made. People grow old because they are atrophied by languor and inertia. I have no patience with men and women who do not flaunt a defiant banner in the face of time, and remain young as long as they can by the process of going right on with tasks and pleasures without a thought of their years. Each year should find us better poised, stronger, fuller of resource, braver and truer than the one that went before it, or we are somehow failing in our duty to the present age.

The temptation to retire too early assails the middle-aged, and straightway they are pushed into the ranks of old age, where they do not belong. We must try to find every day a new day and "a fresh beginning." And let us live for others.

MRS. MARGARET E. SANGSTER.

Mottoes for the New Year

"To be honest; to be kind; to earn a little, and to spend a little less; to make upon the whole a family happier for his presence; to renounce, when that shall be necessary, and not be embittered; to keep a few friends, and these without capitulation; above all, on the same grim condition, to keep friends with himself—here is a task for all that a man has of fortitude and delicacy."—Stevenson.

"There is something better than making a living; making a life."

"Our success in life depends upon our will to do."

"It is never too late to be what you might have been."

"Great principles are in small actions. If we fail in our present circumstances to live nobly, we need not imagine we should have done better on a grander scale. Develop great character in simple duties and in inconspicuous trials."—The Rev. Alfred E. Myers.

"To be of good cheer in case of disappointment; exercise greater charity toward the erring, and make more allowance for the opinions of people whose views differ from mine; to smile more and frown less."

Sayings Worth Memorizing

"I will find a way or make one."—Hannibal.

"Be not simply good—be good for something."—Thoreau.

"Be not overcome with evil, but overcome evil with good."—Words of Jesus.

"Spend as much time as you can in body and in spirit in God's outdoors."

"Doing one's best at each moment is all there is of life."—Lilian Whiting.

"Don't stand and cry; press forward and remove the difficulty."—Dickens.

"Let every action tend to some point and be perfect in its kind."—Marcus Aurelius.

"So act as if the principle upon which you act were to become a universal law of Nature."—Kant.

"There is only one real failure in life

possible, and that is not to be true to the best one knows."

"I have often heard that it is safer to hear and to take counsel than to give it."—Thomas à Kempis.

"Give every man thine ear, but few thy voice; take each man's censure, but reserve thy judgment."—Shakespeare.

"Be careful to avoid with great diligence those things in thyself which do commonly annoy thee in others."—Thomas à Kempis.

"Let us have the faith that right makes might, and in that faith let us dare to do our duty as we understand it."—Abraham Lincoln.

"I must judge of what is right and necessary not by what men say and do, not by progress, but by what I feel to be true in my heart."—Tolstoi.

"Do not dare to live without some clear intention toward which your living shall be bent. Mean to be something with all your might."—Phillips Brooks.

"Whatever we really are, that let us be in all fearlessness. Whatever we are not, that let us cease striving to seem to be."—Anna Robertson Brown, in "What is Worth While."

"Be true to the best of yourself, fearing and desiring nothing, but living up to your nature, standing boldly by the truth of your word, and satisfied therewith."—Marcus Aurelius.

"Look not mournfully into the past; it comes not back again. Wisely improve the present; it is thine. Go forth to meet the shadowy future without fear and with a manly heart."—Longfellow.

"Think nothing for your interest which makes you break your word, quit your modesty, hate, suspect or curse any person, or incline you to any practice which will not bear the light and allow you to look the world in the face."—Marcus Aurelius.

"This, then, must be our notion of the just man—that even when he is in poverty or sickness or any other seeming misfortune, all things in the end work together for good to him in life and death; for the gods have a care of any one whose desire is to become just and to be like God, as far as man can attain his likeness, by the pursuit of virtue."—Plato.

The Kingdom of Heaven is Within You

IF you do not wish for His kingdom, don't pray for it. But if you do, you must do more than pray for it; you must work for it. And to work for it you must know what it is; we have all prayed for it many a day without thinking. Observe, it is a kingdom that is to come to us; we are not to go to it. Also, it is not to come outside of us; but in the hearts of us. "The kingdom of God is within you." And, being within us, it is not a thing to be seen, but to be felt; and though it brings all substance of good with it, it does not consist in that: "The kingdom of God is not meat and drink, but righteousness, peace and joy in the Holy Ghost," joy, that is to say, in the holy, healthful and helpful Spirit.—John Ruskin.

An Old Legend

AN ancient legend describes an old man traveling from place to place with a sack hanging behind his back and another in front of him. In the one behind him he tossed the kind deeds of his friends, which were soon quite hidden from view and forgotten. In the one hanging around his neck, under his chin, he threw all the sins which his acquaintances committed, and these he was in the habit of turning over and looking at as he walked along, day by day, which naturally hindered his course.

When The Birds Come North Again

Oh, every year hath its winter
And every year hath its rain—
But a day is always coming
When the birds come North again.

When new leaves swell in the forest,
And grass springs green on the plain,
And the alder's vein turns crimson—
And the birds come North again.

Oh, every heart hath its sorrow,
And every heart hath its pain—
But a day is always coming
When the birds come North again.

'Tis the sweetest thing to remember,
If courage be on the wane,
When the cold dark days are over—
Why, the birds come North again.
ELLA HIGGINSON.

The only faith that is possessed is that which is practised.

No prayer falls flatter than that which seeks to flatter the Almighty.
Ram's Horn.

Arizona Sights

THE petrified forests of Arizona are among the most interesting of the natural wonders of the West. There are hundreds of acres of these buried forests, the great trunks of giant trees lying prone under a vast expanse of shifting sand. In many places the shifting of the sand has exposed to view the remains of these trees, which for centuries unknown have been undergoing the process of slowly turning to stone.

Another curiosity which the state of Arizona offers is the picture rocks, eloquent reminders of the days when the Aztecs or an earlier race lived in that part of the country in a somewhat advanced state of civilization. Nobody knows what legends these hi-

shows an even larger gain than was shown last year, for the total will certainly reach \$20,000,000.

The Director of the Mint at Washington says that Nevada will show for 1906 a much larger gain in both gold and silver, and that state seems likely to make a contest for first place as a

let a young man or maiden, or any man-made thing, wink, and imagination runs riot with the hidden depths of love thus indicated. To the student of human customs this is a very curious phenomenon. Science, indeed, is quite at a loss when confronted with the fact, absurd, but none the less incontrovertible—that a flirtation without one or several winks imbedded in it somewhere lacks the true spice of adventure.

Although science cannot explain the eloquence of the wink, she nevertheless has good sense enough to admit the fact and order her conduct accordingly. At the Jamestown Tercentennial Exposition, to be held next year in commemoration of early English settlement in this country, arrangements have been made for a "flirtation path," the shrubbery along either side of which will contain 1,000 winking, or so-called "skiddoo," electric lamps.

Each of them will wink 300 times an hour. And as there are 2,000 lamps and they will be lighted five hours ever day, the total per diem winks will run up to about 3,000,000. If this Niagara of roguishness doesn't bring some of the visiting swains to time we shall miss our guess. Electricity has already conquered most fields of human endeavor. It looks now as if love-making also is to be brought under its sway.

◆
"The Little Church 'Round the Corner"
In Twenty-ninth Street, New York, and only a few paces distant from Fifth Avenue stands a low, rambling, picturesque brown structure that has

the appearance of a modest chapel to which various additions have been built from time to time. Between this building and the street is a well-shaded lawn, and there is scarcely a day in the year on which the twittering of birds among the boughs of the big trees does not attract the attention of passers-by. There is a sort of rural atmosphere about the quaint church and its yard that seems so singularly out of place in the heart of a big city that strangers invariably glance curiously at the board on which are inscribed the hours of service and the name "Church of the Transfiguration."

To most strangers this means nothing more than the name of any church. But were some friend to add: "It is also known as the 'Little Church 'Round the Corner'" a new light would dawn on the stranger's mind, and he would know that he was standing before one of the most celebrated church edifices in the United States—a church supported largely by the members of the theatrical profession—a church that has been known for many romantic wedding ceremonies and from which hundreds of dead actors and actresses have been borne to the grave.

The manner in which this church came by the name by which it is now popularly known is as follows:

In 1870 the veteran actor, George Holland, died in New York, and Mrs. Holland's sister desired the funeral to be held at her own church—a fashionable place of worship in Fifth Avenue. Joseph Jefferson, as an old friend of the family, went to the minister with one of Holland's young sons. Mr. Jefferson told the rector that his friend was an actor, and the rector replied that under the circumstances he should have to decline holding the services at the church.

The boy was in tears. Mr. Jefferson was too indignant to say a word, but as he and the boy left the room he asked if there was any other church from which his friend might be buried. The rector replied there was a little church around the corner where it might be done.

Mr. Jefferson said: "Then if this be so, God bless 'the little church around the corner.'"—Scrap Book.

Living Some

A GERMAN statistician has made a careful investigation to discover in which countries the greatest age is attained. The German empire, with 55,000,000 population, has but 78 subjects who are more than 100 years old. France, with fewer than 40,000,000, has 213 persons who have passed their hundredth birthday. England has 140, Scotland 46, Denmark 2, Belgium 5, Sweden 10, and Norway, with 2,000,000 inhabitants, 23. Switzerland does not boast a single centenarian, but Spain, with about 18,000,000 population, has 410. The most amazing figures come from that troublesome and turbulent region known as the Balkan peninsula. Serbia has 573 persons who are more than 100 years old, Roumania 1,084, and Bulgaria 3,883. In other words, Bulgaria has a centenarian to every 1,000 inhabitants, and thus holds the international record for old people. In 1892 alone there died in Bulgaria 350 persons who had exceeded the century.



PETRIFIED TREES, ARIZONA

eroglyphics were meant to tell, but for ages they have been there, carved in the solid rock, mute testimony to the existence of this strange, prehistoric people.

The great rocks in California, in which shallow round holes have been drilled, are perhaps as interesting, although representing a later date. These holes were used by American Indians years ago for the purpose of grinding their corn. The grain was placed in the holes and bruised by means of stones. A tedious process it must have been, and it is safe to say that the women were obliged to do the work.

The Common Soldiers Barred

RECENTLY in St. Petersburg an order was issued forbidding common soldiers to walk on the sunny side of the Nevsky and the fashionable side of the Morskaya. In winter the officers objected to removing their hands from the inside of their military capes to answer salutes, as military law requires.

The Gold in the World

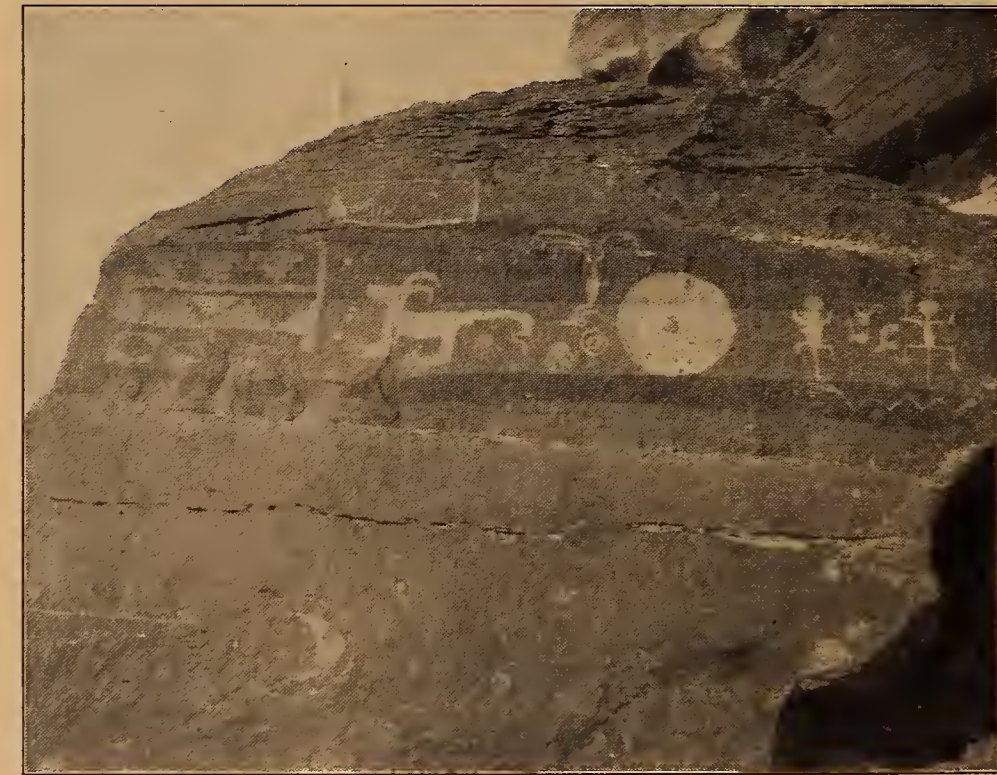
THE stock of the world's gold was enriched in 1905 by the production of new metal to the value of \$376,289,200, this output being nearly \$20,000,000 larger than that of 1904. In giving this final estimate the Director of the Mint said that the largest producer of gold last year was Africa, with an output of \$113,329,110, while the United States ranked second, with \$88,180,700, and Australasia third, with \$85,926,500.

The important gains in gold production were \$7,716,000 by the United States, \$27,415,200 by Africa and \$2,655,900 by Mexico. Losses in gold production were \$1,913,000 by Canada, \$1,840,800 by Australasia and \$2,511,600 by Russia.

All of the principal silver-producing countries showed a falling off in the output of that metal compared with the previous year: the United States, of 1,500,000 ounces; Mexico, of 6,156,000 ounces; Australasia, of 2,000,000 ounces; South America, of 1,742,000 ounces, and Japan of nearly 1,000,000 ounces.

The largest silver producing country in 1905 was the United States, with a total production of 56,101,600 fine ounces, but Mexico was a close second, with 54,652,893 fine ounces.

The gain in gold production in the United States last year was due largely to the increased output in Alaska. This year's unofficial estimate of the production in that territory



WRITINGS OF THE AZTECS

producer of the precious metals. The total output of silver is about 1,500,000 ounces under that of the previous year, the three heaviest producers, Colorado, Montana and Utah, all showing a decline.

Of Interest to Lovers

NOTHING is too sacred nowadays to be hauled out into the limelight of the modern forum—that is, the newspaper, comments the New York "Globe." Everything from the removal of superfluous hair to how to win a husband is discussed by highly paid experts in the daily press. Love-making of the most delicate and sloppy nature is analyzed in broad daylight, and directions only less frank than those of Ovid placed within reach of the humblest among us for the insignificant consideration of 1 cent.

How long love-making has been associated with winking, and why it ever was thus associated, are questions unanswered in dictionary or any other reference book we have been able to locate. There is nothing inherently amorous or even affectionate about the wink. A cow or a cat can wink till her eyelids are tired and no one sees anything coy in the process. But



INDIAN CORN MILL

Purchaser Buying Land and Seller Failing to Do as Contracted

C. C. H., Massachusetts, writes: "I bought a place a year ago, and the man I bought it of was to shingle the house. As he could not do it he let me have hay toward it, and as I could not get the shingles, he made me pay for the hay. Now does he have to do the shingling as he agreed to at first? Is there any way that I can make him do it? Can I get anything for damages as the house leaks badly?"

If the seller agreed to shingle the house, and the purchaser did not release him from that obligation of course he was liable to forfeit his contract. It seems to me that where the purchaser made a mistake in the above matter is in paying for the hay. If the hay was taken toward a release of the seller's obligation to shingle the house, then of course the purchaser would not need to have paid for the hay. It seems that the purchaser has a right of action against the seller, but this may be modified considerably by the way the parties have treated the matter.

Controversy with a Physician

A. S., Ohio, writes: "I was taken sick with fever. The doctor was called. He came twice. I got better and was out for a week. Then I took down a second time with a fever. He was called again. I have been subject to headaches all my life of a very serious kind. Well I had had a headache for nearly a week when he was called the second time. In time past other doctors have told me that a hypodermic injection of different things was the only thing that would control those headaches, which I found to be true. I had used it twice during that last spell of headache. When this doctor came the last time and found I had used it, he declared he would have it if he had to tear things to pieces in order to get it. He took it away from me against my will and against what other doctors had said was the only thing I could use with any effect in such a case. Then the doctor drove all else out of my room, forced me to put my clothes on and had me taken to the hospital without anybody's consent and against my will. I was too ill to fight my own case. Advantage was taken of me in

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every way. After being brought to the hospital, my clothes were taken away from me so I could not get away. Then this doctor came and operated on me without my consent, protest as I could. This operation has been of no benefit whatever, and other doctors laugh at the idea of it ever being of benefit. I finally managed to get my clothes in about a week's time and made my escape. It looks to me as though the sole object was to run up a bill. I am of age, and without property, but have in the past always kept my bills paid up. What I have just narrated happened about three months ago, and to cap the climax this doctor has sent me word if I do not hurry and pay him he is going to make it hot for me.

Well, if this physician so acted as to not be of any benefit to you and treated you against your protest, you might not be obliged to pay him, but if you called him and permitted him to go ahead, I rather think that you will be obliged to compensate him. However, this will depend altogether upon the character of the physician. If he is what ordinarily might be called a quack and has used methods not approved by modern physicians, then there might be some question about it. Anyway it does not seem that he is acting very discreetly in talking to you the way he does, unless you are considerably at fault yourself. Possibly you might be. If the physician was of service he ought to be paid. Of course there is nothing criminal about the matter, and if you are not worth anything he might have some trouble collecting his bill.

Collecting Fees for Illegal Fines

A. B. C., Ohio, writes: "Three years ago this fall A. B. and C. were hunting

on a farmer's place without a permit. The farmer swore out a warrant for their arrest before a Justice of the Peace. A. B. and C. pleaded guilty and paid the fine assessed. A. B. and C. have been informed that the proceedings were illegal and that they can collect those fines from the Justice of the Peace. Is such the case?"

I do not believe that even if the fine was illegal or the proceedings illegal that these fines could now be collected from the Justice of the Peace, for if the proceedings were irregular, in order to set the same aside, it would need to have been appealed or taken up to a higher court and had that court passed upon the legality of the proceedings of the Justice of the Peace. The time for such action has long since passed, and whatever may have been the facts about its being regular or irregular it is too late at this date to question the matter.

Right to Interest on Sale of Real Estate

G. I., wants to know, where land is sold on a contract to deliver the deed at a future date, and possession of the land is taken at once, whether interest can be collected from the date of the contract or only from the time that the deed is delivered?

A question very much similar to the above was recently decided by the Supreme Court of West Virginia. In that case some parties sold land to a railroad company for a right-of-way, and it was agreed that the sum of \$10,000 should be the consideration; one-third when deed was made, and the rest due in one or two years. And that the railroad company might at once begin construction of their road over the premises. In this case the court held that

the owners of the land were entitled to interest from the date of the contract to convey, and not from the time the deed is given. To show that this view is not universally held it is sufficient to say that one of the judges rendered a dissenting opinion in which he quotes a large number of authorities to sustain him.

Rate of Toll for Mill

H. L. S., Ohio, inquires: "Is there a law in this state regulating the rate of exchange in roller mills? The water mills here give thirty eight pounds of flour for a bushel of wheat, retaining twenty-two pounds, then charge us \$1.00 per hundred for mill feed,—practically twenty-two cents per bushel for milling our wheat, or about one third of its market value (it is now seventy cents, but much of the crop was marked at sixty-five cents)?"

The statutes of Ohio provide that the occupier of the Grist Mill, may if a water or steam mill, take for toll the one-tenth part of wheat, rye, or other grain, ground, and the one-twelfth part of all rye, or buckwheat, ground or chopped, only one-eighth part of all corn ground in such mill; and further provides that the mill must return to the customer only merchantable flour and bran for every bushel of wheat delivered, as follows. For every bushel of merchantable wheat, to the measure thirty-six pounds of No. 1 family flour, and fourteen pounds of shorts and bran; for every bushel of merchantable wheat weighing at least sixty pounds and not less than fifty-nine pounds to the measure, thirty-five pounds of No. 1 family flour, and fourteen pounds of shorts and bran. And for every bushel of merchantable wheat weighing fifty-eight pounds to the measure thirty-four pounds of No. 1 family flour and fourteen pounds of shorts and bran, and for every bushel of merchantable wheat weighing 57 pounds to the bushel, fifty-three pounds of No. 1 family flour, fourteen pounds of bran. The statute makes no distinction to the roller mills and the old bur or weather mills. It further provides that if any unlawful toll be taken the offender may be fined \$50 at most, or not less than \$20 for each offense.

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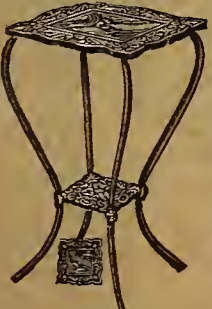
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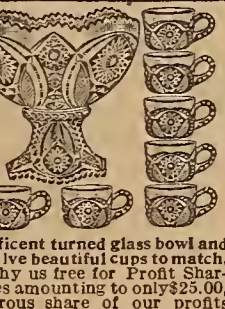
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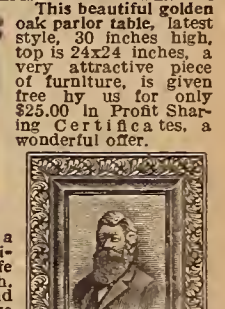
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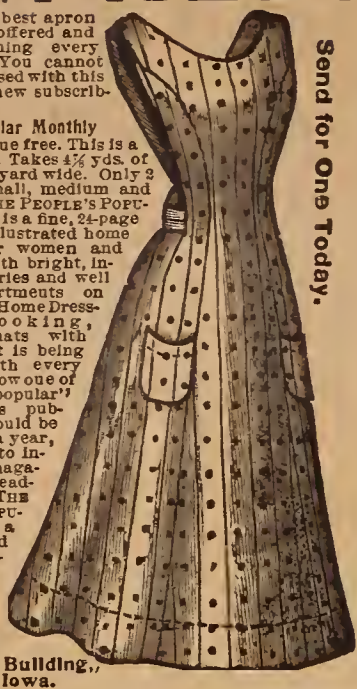
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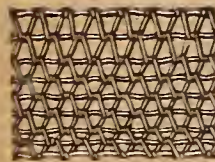
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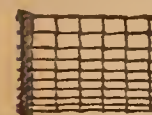
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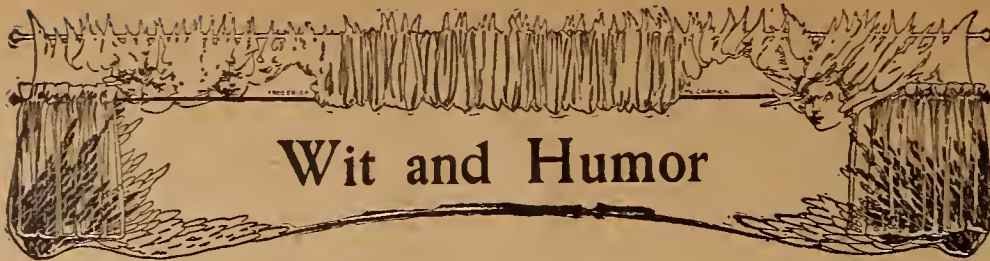
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Wit and Humor

At the Consignee's Risk

THERE used to be in Philadelphia, says a writer in the "Gentleman Farmer," a commission firm noted for its close dealing. It was a habit with this firm always to demand, or at least to request, some discount from the original bills presented to them.

They dealt for some years with a Rhode Island farmer who sold them live turkeys. One year they ordered dressed birds instead, but it is evident that the clerical force was not informed of the change. A week after the turkeys were shipped the farmer was surprised to receive the usual complaint that four of the turkeys were dead when they ar-



Customer—"What are you selling oleomargarine for to-day?"
New Clerk (unguardedly)—"Why, we're sellin' it fer butter, sir."

rived, and the request that he deduct the price of them from the bill for the consignment.

"It is with regret," he replied, "that I have to advise you that I cannot make the concession requested."

"It is my custom to require all patrons desiring live dressed turkeys to notify us in advance, so we may forward them in heated cars. Owing to the chill prevailing at Thanksgiving-time, turkeys without feathers or insides are liable to take cold if shipped in the ordinary manner. The mortality among dressed turkeys was very large this year."

Not What She Expected

Benny recently made his debut as a Sunday-school scholar. When he came home, says a writer in the New York "Evening Post," his father and mother waited to hear a report of his experiences, but Benny evidently was too much dazed by them to begin.

"Well, dear," said his mother, helpfully, "did you say the text?"

"Yes, mother."

"And did you remember the story of the lesson?"

"Yes, mother. I said it all off by heart."

"And did you put your penny into the basket?"

"Yes, mother."

Benny's mother caught him up and hugged him ecstatically.

"Oh, you little precious!" she said.

"Your teacher must have been so proud! I know she just loved you. She said something to you, didn't she?"

"Yes, mother."

"I knew it!" with a proud glance at Benny's father over Benny's head.

"Come, darling, tell mother what the teacher said to mother's little man."

"She said for me to bring two cents next Sunday."—Youth's Companion.

Honesty Appreciated

"Do you know," a pretty bride of three months said to a friend the other day, "I think all these jokes about



Old Gent—"Polly want a cracker?"
Parrot—"Well, if it's stale I don't want it. But if they're anyways decent I might take a half pound or so."

young wives having so much trouble with butchers and grocers, and being cheated, and all that, are just too foolish."

"Then I presume you are getting on all right with yours, dear?" her friend inquired.

"Why, of course I am! Anybody would if they would just deal at a reliable place," the young wife declared. "Now, there is my grocer," she continued. "He is just as obliging and

thoughtful as can be. The other day I ordered a dozen oranges, and when they came I found there were but eleven in the bag, so when I went to the store again I told him so.

"Why, yes, ma'am," he said, "I know there were. I had put in a dozen, but I noticed that one of them was spoiled, and, of course, I couldn't send you any but the best goods, so I took it out."

"Now, don't you think that was nice in him to be so thoughtful and honest?" she continued.—Detroit News.

Physiology in the Schools

The following answers to questions in physiology were taken from the papers written by a class of boys in a Philadelphia public school, who are nearly all Russian Jews:

"An organ is a piano of the body that has some special work to do."

"Digestion is mainly carried on in the New England states."

"The teeth found in an adult are incisors, biscuits and molders."

"The first set of teeth are called the milk or temperate set."

"The digestive fluid secreted by the mouth is the alimentary canal."

"The epiglottis is a little trap door in the chin."

"We should not pick our teeth with pins nor scrape them with a nail."—New York Sun.

The Troubadors

Taft and Funston and Magoon, Busy when the sun's at noon, Busy 'neath the southern moon, Crossing o'er the still lagoon, Piping forth a pleasant tune: "Peace to all men very soon— This is freedom's choicest boon." 'Neath the yellow Cuban moon They are singing all in tune, Taft and Funston and Magoon. —Cleveland Plain Dealer.

Concerning Jubilees

A writer in "Harper's Weekly," in the course of some reminiscences of the days of Queen Victoria's jubilee, recalls the following conversation between two old Scotch women which was overheard one day on a street corner in London:



Teacher—"I am sorry to learn that some of my boys absented themselves from Sunday-school to-day to go fishing. Now, you wouldn't do a thing like that, would you, Thomas?"

Thomas—"No, sir."

Teacher—"Now, Thomas, get up and tell the class why you wouldn't go fishing to-day."

Tommy (rising)—"Because it's too cold to catch anything."

"Can ye tell me, wumman, what is it they call a jubilee?"

"Well, it's this," said her neighbor.

"When folk has been married twenty-five years, that's a silver wuddin'; and when they have been married fifty years that's a golden wuddin'. But if the mon's dead, then it's a jubilee."

Gretchen at the 'Phone

Mullins has in his employ a faithful but stupid German girl. The other day she responded to the ringing of the telephone-bell.

"Who is this?" came over the wire.

"It is me," replied Gretchen.

"And who is me?" again came over the wire.

"Vy, me is me."

"But who is me?"

"It is me—mine own self," retorted Gretchen.

"But who is yourself?"

"I am mineself!" gasped the girl.

"How could I be anypotty but mineself?"

"Stop your kidding and tell me your name."

"Gretchen Gausch."

"Who is Gretchen Gausch?"

"She is me—mine own self."

Whereupon the colloquy came to an end, for Gretchen, hearing laughter at the other end of the line, hung up the receiver, muttering indignantly to herself, "I vill not shstay here to be made a shoke of. How could I be anypotty but me? I vill not be made a shoke of!" —Judge.

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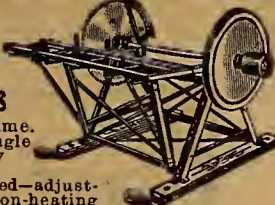
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Two of the Usual Kind

FIRST FATHER. I don't think that it is a universal trait among fathers to tell of the doings and sayings of their children. I don't do it.

SECOND FATHER. Nor I, either. But writers have got into the habit of saying so, just as they say that mothers-in-law are disagreeable. Now, I think that my children are just ordinary, healthy, average children, who seldom say or do anything worth repeating.

FIRST FATHER. Well, I'm glad to hear you say so—

SECOND FATHER. What?

FIRST FATHER. No, don't misunderstand me. I mean I think the same of mine. They seldom scintillate, although little Florence did say a pretty good thing the other night when she was saying her prayers. Her mother—

SECOND FATHER. And that reminds me that my oldest boy, Edwin, got off a rather droll thing the other day. He was— But I beg your pardon; you were going to tell me about your Florence.

FIRST FATHER. Yes, I know I was, but your mentioning your oldest reminds me of a better one. My boy Sam came pretty close to being witty the other



"Beg pardon, but I've got to hurry along"

day. He'd been bathing— But go ahead with your story about Edwin.

SECOND FATHER. Oh, speaking of bathing reminds me of a good one that our baby said the other day while her mother was preparing her tub. She can only prattle—

FIRST FATHER. 'D I ever tell you what Edwin said when the coachman swore in his presence?

SECOND FATHER. No, I don't think so. But when it comes to swearing, my Tom could give a canal-boat driver points, and we don't know where he has picked it up. Awfully funny thing happened the other night. The minister was dining with us, and—

FIRST FATHER. Oh, when it comes to dinner-table breaks, I think I can cap anything you have with what our Mabel said when the missionary from—

SECOND FATHER (looking at his watch). Beg pardon, but I've got to hurry along. I had no idea it was so late. (As he hurries off.) Rude fellow! He never gave me a chance to tell a single anecdote. Stupid kids of his! I don't believe they ever said a thing worth repeating in their lives!

FIRST FATHER (left alone). Well, if I had such idiots as his children are I'd never attempt to tell any of their sayings. If he'd kept quiet I could have told him some anecdotes that were worth while, although I don't make a rule of repeating my children's conversations. CHARLES BATTELL LOOMIS.

Crop Stories

"Yes," said a farmer near Detroit, "the crops is poor this year, but you must remember that we had a poor growin' season.

"Tain't always so. I remember when th' corn used to grow twelve feet high, had ears two feet long, an' four of 'em made a bushel.

"Yes, sir. An', one season th' wheat grew so high we had t' cut it with a crosscut saw—Say! where are you fellers goin'?"

But the group of listeners had escaped into the dark and gloomy night. —Detroit News.

An Understudy

"Have you got a job, Sam?"

"Yes, sah."

"What are you doing?"

"I'm an understudy, sah."

"An understudy, Sam?"

"Yes, sah. My wife does washin', an' I'm her understudy."

"But have you ever been called upon to take her place?"

"No, sah; I hain't got dat far yit, sah!"—Yonkers Statesman.

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A Beautiful Painting In Ten Colors

by one of our most famous animal painters, is the artistic and mechanical masterpiece that we give without extra charge, with every copy to paid-in-advance subscribers. Others cannot obtain it at any price. Its title, "The Right of Way," gives some faint idea of the action and interest of this work of art. We shall not tell you more about it—we want it to be a surprise. You will be surprised to know that we have gone to the expense of reproducing this painting in all the ten original colors. This picture is not printed like the others we have sent you, but lithographed—a most expensive and beautiful process.

Another Great Story

The success of Miss Roosevelt's novel, which has probably aroused more enthusiasm among FARM AND FIRESIDE readers than any other one feature we have ever had, has led us to begin in this January 15th Annual, another serial story, this time of special interest to the children, entitled "Rafe, the Rubber Gatherer." This exciting story of life in Brazil, South America, will run for over two months and both the children and you older folks will want to begin it now. Otherwise you will lose the whole plot, which is an exciting one.

Ireland, the Picturesque

is the subject of our friend Mr. Haskin's travel talk which will be printed in the Special Annual.

More Music

"The Angel's Message" was one of the most delightful features of the Christmas Number, and we have added as a special attraction for January 15th, "A Lullaby," by Evelyn Aldrich and Leon M. Thompson, the distinguished composers. Sheet music like these songs would cost you forty or fifty cents in the stores. We make no extra charge—if your subscription is paid up—otherwise you will miss the song altogether.

How the Farmer Lives in the Carolinas

will interest every farmer and his family all over the country. We always want to know what the other fellow is doing, and this beautifully illustrated article tells you all about a most interesting kind of farm life.

For the Woman of the House

There are so many special features of interest that we cannot describe them here. In fact, you must see this great number to appreciate it. You really must; so if you are not sure that you are paid up, accept one of the offers in the next column now and make sure of getting this Special Number together with a fine

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FARM AND FIRESIDE wants to give every reader who accepts one of these Last Chance Offers a special gift. The GIFT is intended chiefly for the ladies of the family, but it will be appreciated by all. THE EDITOR of THE FIRESIDE DEPARTMENTS will send this New Year's present to you with his compliments. It will bring cheer and good-will into your home.

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Cut out this Coupon



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How the Farmer Lives in the Middle West

[CONTINUED FROM PAGE 19]

The family of the farmer, too, is not now commonly held to the rigid discipline and incessant work of other days. It is no doubt true that inadequate burdens are still placed upon the housewife, although the creamery system and other modern methods have, in a measure, lightened her labor. The young people of the family, especially the boys, work very hard at times, but vacations and rest days are frequent and the school terms long, and such young people take an active interest in the sports and pleasures incident to youth. Nearly every farmer boy has a horse and carriage, the pleasure of which he gallantly shares with his girl acquaintances. The social status of the farmer and his family has been immeasurably elevated—to the extent, indeed, that the old gulf between the town and country people is now a memory. Country bores there are yet in plenty, but a country residence and vocation is no longer a bar to refinement and accomplishments. Many young farmers go to the towns for their brides, and farmer girls often become the wives of town men.

Every neighborhood has its dozens of young people who are being educated at some college or academy. Many counties have added a public high-school, located at some central point, to the free educational system. In some localities the plan of maintaining a strictly modern graded school and gathering the pupils at public expense from a radius of a half-dozen miles around has been adopted. In truth, the solitary red (usually white) schoolhouse, standing upon every second or third section corner, so long the theme of romance and sentiment, may soon be required to give way to more modern and effective methods of education. But notwithstanding the local facilities hundreds of farmers' sons and daughters go to the state universities, normal and agricultural colleges. The latter is especially attractive, as they treat of subjects of agricultural interest; but what proportion of the attendants and graduates return to the farm as a life-vocation the writer is not prepared to state. To his personal knowledge, however, many do so return, as full of enthusiasm for the profession which has opened out before them as are the graduates in law or medicine for their vocation.

The average farmer is rather an independent citizen. The store credit system of the South is practically unknown, the farmer buying his supplies where he pleases and paying cash for the same. He sells his live stock to the local buyer if the price offered is satisfactory, otherwise he chartered a car and takes the consignment himself to the city market. He sells his grain from the field or stores it, as seems to him, the most advisable. He rarely finds himself compelled to make sacrifice sales in order to obtain money. The country banker cultivates his acquaintance and is glad to accommodate him in the matter of loans. The farmer has become, in fact, as much a business man as the store-keeper. He studies his farm and the markets and conforms his plans to existing conditions instead of adhering blindly to established notions.

The prosperity of the Nebraska-Kansas-Oklahoma region has become proverbial, and is a fruitful theme of the jokesmiths. Farmers are represented as wearing diamonds, riding in automobiles and traveling in Europe—all of which, written in a spirit of exaggeration, is literally true. As illustrating that prosperity, and also the characteristic crops, this item from a country paper is of interest:

"John Jones, the well-known farmer, is telling a good joke on an English tourist. While riding up to the city last week to buy an automobile Jones shared his seat in the Pullman with the Englishman. After gazing out of the window for a long time, the tourist turned and observed:

"Ah, I notice that all of your forests in this part of the country are planted in regular rows."

"Forests!" snorted Jones, "that isn't a forest you're lookin' at; that's a corn-field!"

EDMUND G. KINYON.

Would Be a Farmer

UNITED States Senator Pettus, of Alabama, who is eighty-six years of age, when asked what vocation he would choose if he were again beginning active life replied: "The high calling of a farmer. I would purchase a nicely located farm and settle down to farming as my life work, thus guaranteeing to my loved ones and myself the highest and happiest of hours, with a full crib, a full smokehouse and a full measure of usefulness."

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Jottings from a Farm Log-Book

We had a queer experience with a three-year-old heifer this past summer. She had been troubled off and on with a kind of snuffling in the head or nose. We tried to find out what was the cause of the difficulty, but could not. At times she would appear to be all right, and never seemed to be really sick. She came in when two years of age, and did as well as a cow; but every once in a while she would have spells of breathing hard.

At last we became fearful that the trouble was something serious. This opinion was strengthened by the fact that several cows in the adjoining township had been condemned for tuberculosis. Not knowing just what the symptoms of that dreaded disease were, and desirous of preventing its spread should it prove to be true that our little favorite was afflicted with it, we called a local veterinarian. We were fortunate in getting a careful man, and have been very thankful that this was so ever since.

A close examination of the cow's body, lungs and other parts did not reveal any positive signs of disease. The question then was "What is the cause of the difficult breathing?" To settle that problem we carefully threw the heifer, so that we could examine the head and nostrils the better; and there, firmly imbedded in the nose was a broken branch of an apple tree, six inches long and nearly as large as one's little finger. It had been there till it had been partly overgrown by a stout membrane. Nature had done what she could to repair the damage done. In the course of her labors she had brought about suppuration several times, but on account of the branch being forked at both ends she was not able to cast the cruel thing out.

How thankful we were that we could relieve the little cow! From the history of the case we believe that that stick had been in the heifer's nose since she was a calf. Three years of terrible suffering. But now she is well and all right.

EDGAR L. VINCENT.

Cooperative Marketing and Purchasing

It would be better for both producer and consumer if the great (not to say useless) number of middlemen who stand between them and fix the prices both ways, could be greatly lessened. Both the producer and consumer would, in such a case, be directly benefited. Cooperation between both classes would be mutually advantageous.

A prime need of farmers as a class, is more confidence in each other that effective cooperation may be possible. In justice to themselves, farmers should stand more firmly for better prices for their varied farm products, particularly for the leading money-producing crops in their respective localities. This would enable them to buy more improved machinery, build better homes, include more needed household conveniences, and above all, secure better facilities for the education of the boys and girls for their life work along the line of their inherent or cultivated tastes. To secure such desirable results, farmers as a class need to avail themselves of the advantages that cooperative selling as well as of buying would afford.

W. M. K.

Agricultural News Notes

According to a recent report of the Minister of Agriculture of the Dominion of Canada, that country supplies over three sevenths or nearly one half of the output of maple sugar and syrup of the world.

The "Wall Street Journal" is authority for the statement that there is a sufficient area of uncultivated land included in the farms of the United States, which, if cultivated in wheat, would double the size of the present crop.

Professor Olin, of the Colorado Agricultural College, has found a market for nearly all the Durum wheat grown this year. He predicts an increased use for bread and export. The College is also testing the stock-feeding value of Durum wheat.

Iowa is to hold a "Seed Corn Harvest Day" annually, on the second Wednesday in October. The best ears are to be selected on that day. With such ears for seed, it is probable that we shall hear of still larger crops than heretofore.

Of the one hundred and seventy-four sugar plantations in Cuba, sixty-nine are owned by Cubans, sixty-four by Spaniards, twenty-four by Americans, nine by Englishmen, seven by Frenchmen and one by Germans.



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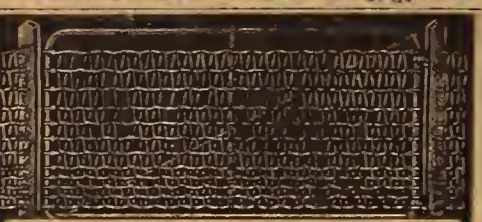
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Made of purest rubber and best sole leather—sewed not pegged—absolutely water-tight and snag-proof—can be resoled—your money back if they do not outwear two pairs of the best quality rubber boots of other makes.

If you work in the wet, you want a boot that will keep your feet perfectly dry—and at the same time not to go to pieces in a few weeks time. Well, here it is:

The Rubberhide Boot

Made of the purest rubber, with heavy leather outsole, and leather innersole, with a rubber welt and middle sole, all joined together (without pegs or nails), and joined to the upper so securely, that a team of horses can't pull them apart.

And not a drop of water can find its way in. The heavy leather sole does not cut or snag when you step on a nail or a sharp stick.

It protects your feet from stones and rough surfaces.

It conforms to the shape of your foot, and it can be easily resoled—any cobbler can "tap" or half-sole the Rubberhide. The uppers are so good that they will outwear two or three pairs of soles.

The inner sole of leather prevents excessive perspiration which makes the ordinary rubber boots such a nuisance.

The Rubberhide is the only absolutely water-tight boot made; it will last longer than two or three pairs of rubber boots; it will keep your feet comfortable all the time.

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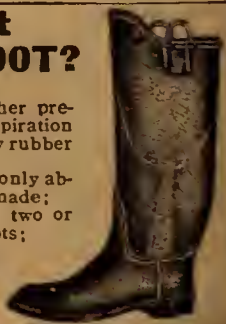
Outwears Two Pairs

If your dealer handles the Rubberhide he will sell them to you on a positive guaranty that they will outwear two pairs of even best quality rubber boots of other makes. If they do not, he will refund every cent you paid for them.

If he does not, send to us direct (giving dealer's name) and we will send you a pair with the same money-back guaranty. We pay the express charges.

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EASTERN EDITION

Vol. XXX. No. 8

SPRINGFIELD, OHIO, JANUARY 15, 1907

TERMS { 25 CENTS A YEAR
24 NUMBERS

THE accompanying illustrations show the results of growing legumes and of intensive farming.

No. 1—The strawberries were planted on land previously cultivated in garden crops, where cow peas were sown after the first or second crop had been harvested.

No. 2—The Emerald Gem cantaloup is

not grow more than thirty bushels of corn or ten bushels of wheat to the acre. Now it will produce thirty bushels of wheat or ninety bushels of corn to the acre. While there is land in sight that

Intensive Farming

of the only source from which the food supply of generations yet unborn can be procured.

Money can be quickly restored to those from whom it may have been taken, but

VALUE OF HUMUS IN THE SOIL

The capacity of the soil for absorbing and retaining moisture is largely due to the amount of humus it contains. This substance is best known as a decaying substance, and is formed by the action of the air and moisture on animal or vegetable matter. The retentive power of



No. 1—STRAWBERRY FIELD. YIELD, ONE GALLON FOR EACH FOOT OF ROW



No. 3—VEGETABLES IN PEAR ORCHARD

one of the best filler crops to grow in a young orchard, to be followed by a seeding of rye as a winter cover crop.

No. 3—In the row of trees at the right of the picture is a row of peppers; then a patch of Horsford's Market Garden peas; next three rows, New Stone tomatoes. In the next row of trees is a row of cabbage; next to this, a block of cantaloups, and a block of tomatoes.

No. 4—The land is in a high state of cultivation when planted in orchard. Then each year we store up in the soil

has depreciated in value, this has increased fourfold.

Kentucky. J. WESLEY GRIFFIN.

The Soil Must Be Fed

The soil effects of more than a century of reckless, thoughtless cultivation of the soil is apparent in nearly every section of country. Even where the fertility of the soil was such that it was deemed inexhaustible, the present low annual average yields should serve as a

the elements of plant food in the soil can only be replaced and made available by the slow but sure processes of Nature. One can but admire the efforts of Nature to restore the fertility to the soil by reclothing the worn-out uplands and the naked, gullied hillsides with the green verdure of almost numberless varieties of trees, plants and grasses. Nature has her own slow but sure way of restoring to the earth what the improvident husbandman has taken from it.

Happily, a new order of things is now

garden mold is largely due to the humus. The constant aim of the intelligent farmer should be to increase the quantity of this valuable substance in the soil. Should there be an excess of humus in low lands, drainage, lime and cultivation constitute the remedy. Should the soil lack humus, it can best be restored by plowing under green crops, or better, by feeding them down previous to doing so. In restoring humus to the soil a judicious rotation of crops, including a period of rest, is often desirable.



No. 2—CANTALOUPS IN CHERRY AND PEAR ORCHARD



No. 4—COW PEAS IN THE PEAR ORCHARD

fertility in the form of cow peas and clovers for future use in growing fruit.

These illustrations show what may be done on hard and thin land by intensive farming, as taught in FARM AND FIRESIDE by teachers like T. Greiner in the garden, Mr. Grundy on the farm, and Samuel B. Green in the orchard.

This piece of land ten years ago would

warning to the rising generation, that the time has come when the "taking off and putting nothing on" system of cropping should be discontinued.

Continuous cropping without returning to the soil the fertilizing elements taken from it is not only unprofitable now, but is a system of unjustifiable robbery, since it is a sure means of robbing our posterity

being established by the co-operation of the young farmers of to-day with the teachings of science in adopting improved methods of soil culture, cropping and soil improvement as now advocated at our agricultural colleges, experiment stations and farmers' institutes, ably seconded by the hearty co-operation of the United States Department of Agriculture.

Humus possesses valuable points other than those of simply supplying plant food. Its dark color makes the land warmer and increases its moisture-holding capacity. It also overcomes the adhesiveness of stiff clay soils and makes sandy land more productive, especially when lime is added to the soil to hasten the decay of fertilizing materials.

W. M. K.

FARM AND FIRESIDE

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SPRINGFIELD, OHIO

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Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelope and get lost.

Postage stamps will be received in payment for subscriptions in sums less than one dollar if for every 25 cents in stamps you add a one-cent stamp extra, as we must sell postage stamps at a loss.

When money is received, the date will be changed within four weeks, so that the label will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this a great deal of trouble will be avoided. Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on the label, to your letter of renewal.

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Always give your post office at the beginning of your letter.

About Advertisements

FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment.

Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

ONE of our readers has complained of the fact that so many advertisements in FARM AND FIRESIDE say, "Cut out this ad. and return it in your letter." Our subscriber objects to mutilating his copy of the paper, and in some cases impairing a valuable article on the other side of the sheet.

His point is well taken, and we wish to assure all of our readers that it is not necessary for them to cut out the advertisement itself in order that any inquiry they may wish to make will receive proper attention on the part of the advertiser. Just write a plain, business letter stating where you saw the advertisement, and it will receive prompt and careful attention.

Remember, we guarantee every advertisement that appears in FARM AND FIRESIDE, and the intelligent patronage our advertisers receive from your hands is what makes FARM AND FIRESIDE possible to you at the price.

Reasons for Unscientific Agriculture

In his tenth annual report on the work of the Department of Agriculture Secretary Wilson speaks of the unscientific methods of the American farmer—the subject of Mr. J. J. Hill's keen criticism—as follows:

"The mighty production of the farm for one third of a century has come out of an agriculture having many faults. In a large degree there has been one-crop farming; crop rotation, as practised, has often been too short and unwise; the grasses and leguminous forage crops have been neglected, domestic animals have not sufficiently entered into the farm economy, and many dairy cows have been kept at a loss. The fertilizers made on the farm have been regarded as a nuisance in some regions; they have been wasted and misapplied by many farmers; humus has not been plowed into the ground as generally as it should have been; and in many a place the unprotected soil has been washed into the streams.

"This, in a few words, is the historic story of agriculture in a new country; yet the course of agriculture in this country, bad as it may seem in its unscientific aspect, has had large economic justification. While pioneers, poor and in debt, are establishing themselves they have no capital, even if they had the knowledge, with which to carry on agriculture to the satisfaction of the critic. They must have even at the expense of the soil.

"Millions upon millions of acres of fresh land have been coming into production faster than domestic consumption has required, and, at times, beyond the takings of importing countries. For many years the farmer was threatened with 40-cent wheat, 20-cent corn, and 5-cent cotton, and at times he was face to face with the hard conditions implied in these destructive prices. A more scientific agriculture would have raised wheat that no one wanted to eat, corn to store on the farm and perhaps eventually to be used for fuel, and cotton not worth the picking.

"So it has happened, with reason, that the production per acre has been low; but there is no likelihood that low production is fixed and the farmer must continue his extensive system. When consumption demands and prices sustain, the farmer will respond."

A Dark Shadow

One of the shadows falling across our marvelous prosperity is child slavery. We boast of the enormous output of our varied industries. Wonderful machinery has multiplied many times the product of human labor. In these "good times" we produce enough, if fairly distributed, to maintain every man, woman and child of the nation in more than comfort. Why, then, do we find the evils of child labor increasing, and find them greatest when there is the least necessity for child labor at all?

The cities are no longer able to supply the ravenous demand for cheap child labor. In some regions factories now draw their main supply from the country. The evils of child labor have

grown so great, in this the period of our prosperity, that they affect country and city alike, and their suppression by law is an absolute necessity for the welfare of the republic.

In a recent address on "The Schools and the Nation," Senator Beveridge said:

"Nothing shows how greed forgets humanity as much as the child slavery in certain sections of this country. There is something wrong with a prosperity which is so immense that it finally comes to feed upon the lives of little children.

"There are, at a low estimate, five hundred thousand children under fourteen years of age at work in cotton mills, factories, sweatshops, mines and other industries. Those whom such toil does not kill are being literally ruined for citizenship. We are turning out, at a low estimate, two hundred thousand adult London 'Hooligans' every year. And these become in turn the parents of hundreds of thousands of other degenerates. And so this civic pestilence riots and spreads.

"It has got to be stopped, if not for the sake of these children themselves, then for our own sake; if not for the sake of common humanity, then for the sake of the republic's safety. For this republic is based on citizenship. We cannot sow to the winds to-day without reaping the whirlwind to-morrow. If everybody, including the most earnest advocates of 'states' rights,' could agree on a national quarantine law to keep out yellow fever, which does not kill twenty people in twenty years, how much more should we agree on a national child labor law to stop a practise that actually kills thousands of children every year and irreclaimably ruins tens of thousands every year? To be sure, no great industries were maintained upon yellow fever, and great industries are maintained upon child labor. Business interests were not advanced by the bubonic plague, but business interests are advanced by child slavery; but is that an argument? Have we become so commercialized that while we forget 'states' rights' when providing against yellow fever and the bubonic plague, we remember 'states' rights' when providing against the murder and ruin of little children?

"However, the theory of 'states' rights' is not affected by the child-labor bill pending in the Senate. It cures the evil without touching 'states' rights.' The bill affects child labor only in factories, mines and sweatshops. That is as far as it should go at present. It does not touch any healthful employment of children anywhere in the republic. It only cuts out the cancer of murderous and debasing child slavery, and that is all."

Bryce on Congress and President

It is announced that the next Ambassador from Great Britain to the United States will be the Honorable James Bryce, the well-known author of "The American Commonwealth."

One of the striking passages of this famous book reads as follows:

"So far from exciting the displeasure of the people by resisting the will of their representative, a President generally gains popularity by a bold use of the veto power. It conveys the impression of firmness; it shows that he has a view and does not fear to give effect to it. The nation, which has often good grounds for distrusting Congress, a body liable to be removed by sinister private influences, or to defer to the clamor of some nervy section outside, looks to the man of its choice to keep Congress in order."

When he arrives in Washington Mr. Bryce will find some of the activities of our political life forcibly illustrating his statement about the attitude of the nation toward Congress and the President. The people certainly have good ground now for distrusting, not Congress as a body, but a few shrewd, eloquent and unscrupulous members of it, who are sometimes able to move it for sinister political and private purposes. He will find prominent senators posing as great constitutional lawyers who are really only smart corporation lobbyists. He will find them kicking up dust about minor matters, striving to discredit the President, and trying to kill time and divert the attention of Congress from the consideration of measures of great importance to the nation—all in the interests of profitable clients whose special privileges and private grafts are threatened by reform legislation. But he will also find the nation with more confidence than ever looking to and supporting the man of its choice.

J. C. Barnett.

Farmers' Meetings

AT NO time in the development of American agriculture has the need of agricultural education been so pressing and the demand for it so urgent as now. This becomes strikingly apparent when one is a regular attendant at horticultural gatherings and farmers' institutes or club meetings, and notes the steadily and rapidly increasing numbers of persons who come together, sometimes from considerable distances, on these occasions. Take the meetings of the New York State Fruitgrowers' Association and the Western New York Horticultural Society as examples. From year to year their memberships have grown, at times almost doubled, and the farmers' boys, the young people, are getting to be more and more in evidence.

A winter course at an agricultural college is a good thing for those who can have it. But not every boy has the chance. Without this, however, I know of no better course of horticultural education than the attendance at these meetings. Any young man who for a number of years will attentively listen to the lectures, talks and discussions at several of these meetings, and back this up by home study and especially home practise, will keep in line with the advance guard of the procession and in touch with modern progress in this particular branch.

The farmers' institutes have a wider scope of topics and discussions, and are probably of greater benefit to the general farmer. The farm boy, anxious to learn, has every opportunity to acquire a fairly good substitute for a college-course education by attending some of these meetings for a few years.

I believe that he who has sons growing up to be farmers or fruitgrowers fails in one of his first and most sacred duties to them if he needlessly neglects to send them to every one of these meetings held within a reasonable distance. It is one of the ways, and by far the cheapest, to give them the agricultural education now so absolutely necessary to the boy for best success. One bit of information thus gathered often leads to a return of one hundred dollars for every dollar expended in fares or hotel bills. Father, go to the meetings; but send the boy, anyway!

The Fuel of the Future

Just at this time there comes a cry of distress from the Far West. The question is that of protection against the bitter cold and the biting blizzard. The coal supply in places has given out. Of wood there is none available for fuel, unless (as actually being done in some instances) felled and sheds and necessary outbuildings are torn down and made use of for firewood. The railroads cannot be prevailed on to furnish transportation from the mines or of storage to these distant points while the cars can be used for other merchandise with more profit to them. All sorts of heroic measures, up to the use of the militia, are proposed for compelling the roads to grant relief.

Here in the East, in comparative nearness to the mines, we are not entirely free from suffering. Thousands of children, and older people, too, are intimately acquainted with the pangs of cold, often intensified by hunger. And all this in the richest, most prosperous country on the globe, with immense deposits of coal and subterranean lakes of oil.

At this stage of development it seems up to the coal operators and to the railroads to furnish to the American people the chance to get coal to keep warm or cook their meals. But it is also up to science and to the men of science to bestir themselves, and to make earnest efforts for the discovery of ways and means of warming and lighting our homes, and producing power to drive our machines. These are the currents of more or less rapid-running streams; great masses of water falling over precipices; the tide at the seashore; the magnetic and electric forces of the earth itself and the clouds; and finally, that great center of heat and power, the sun. There is plenty of motion all around us, and motion means heat and light and energy. The water, if separated into its two main constituents, hydrogen and oxygen, becomes combustible, and even highly explosive.

Some of these things will be made available for the purposes of heating and lighting and furnishing energy. If "cheap" alcohol should prove to be a delusion, science has not by any means got to the end of her rope. It is "dollars to doughnuts" that the fuel of the future will not be coal. But now, when many of us have to scrimp and save all summer in order to be able to have the means to buy the coal needed to keep us fairly comfortable during the winter, the men of science should get to work so as to give us soon the relief we so sorely need.

T. Greiner.

Good Things Coming

We haven't the space here to tell you all the pleasing features that we shall introduce to our readers, but we want to say that in so far as building up and improving FARM AND FIRESIDE is concerned, we are going to keep it up. In the next issue, that of

February First

we shall tell you of the interesting life of **The Farmer in the Gulf States**

Frederic J. Haskin will describe the life and conditions of the two million poor people

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the greatest center of squalid poverty on the globe.

Prof. E. P. Walls, formerly of the Maryland Agricultural Experiment Station, will in a special article

Discuss Stock Breeding

Mr. Henry Whitney Cleveland, historian, biographer and eminent journalist, will present the subject

Where Was Lincoln Born?

This paper required a great deal of careful research, and Mr. Cleveland throws some very important lights on history.

February Fifteenth

will be another big colored picture issue. In addition there will be a wealth of illustrated special articles and stories, among them being

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W. R. LEITCH

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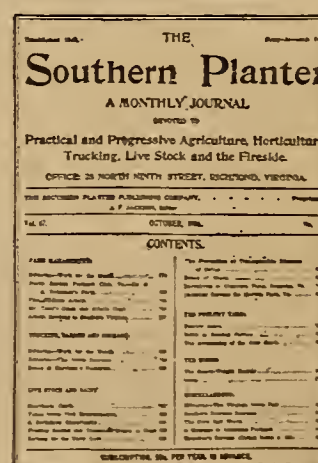
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About Rural Affairs

Our Game Laws

MR. A. A. HALLADAY is a wide-awake Vermont farmer. I believe he was the originator of the Imperial tomato, which became quite popular and was one of the best sorts introduced during the decade 1890 to 1900. Referring to the remarks under the head of "Bird Studies," in issue of December 15th, he writes me as follows:

"Vermont laws protect all birds except quail, woodcock, wild duck, Wilson or English snipe, ruffed grouse, wild goose, plover, pheasants, English partridge, merganser, blue heron, English sparrow, crow, blackbird, crow, jay or birds of prey. The penalty for shooting or killing any other bird is five dollars for each bird so killed.

"Under this protection birds are becoming very numerous, and are doing a large amount of damage. The robin is multiplying rapidly. We have a cherry orchard of three hundred trees, and for the past four years the birds have taken each year more than one hundred bushels of cherries from our trees, worth at our door four dollars a bushel. The birds doing us the most damage are robins and cherry-birds (cedar-bird or wax-wing), the latter coming in flocks of hundreds.

"Deer are also doing immense damage to young orchards, garden and field crops. The law protects the deer and birds, but does not protect the farmer or fruit-grower nor provide for paying any damages done by protected birds or other animals.

"I have been working to get bills passed in our present legislature, first to take the cherry-bird from the protected list. This bill was referred to the committee on fisheries and game. All the bird clubs in the state were notified, and the bill was killed in the committee. Then I sent a bill to the committee which gave an open season on cherry-birds during the months of June and July, the birds to be shot only from the branches of bearing cultivated cherry trees. This bill is pending with little prospect of its becoming a law this year. We went before the committee and stated our losses. The cedar-bird is not a song bird or an insect-eating bird and does not nest until after the cherry season.

"I have notified the fish and game commissioner of the state that in the future I shall protect my property against man, bird or beast. I claim I have this right under the constitution of the United States.

"I believe fully in all reasonable protection of birds, but I also believe more fully in the right of every man to protect his property, and that no law that ever has been or will be made can constitutionally take such right from him."

New Jersey farmers have also suffered great losses from protected deer, and have been subjected to prosecutions and annoyances whenever attempts on their part to protect their property against these pests of the sporting fraternity came to the notice of game wardens or other officers charged with the execution of the game laws. Undoubtedly the game laws of the various states are far from being perfect, and in many instances in direct opposition to the interests and property rights of the farmers. Unreasonable protection has transformed pests into pests.

Farm Water Supplies

An abundant supply of pure water on the farm or in any home—what a blessing, yet so often unappreciated! Without appreciation, without care and protection, however, what can be more dangerous to health, and life itself, than apparently "pure" water. I am afraid of the general run of drinking water, and I know whereof I speak. This vicinity is seldom free from typhoid fever cases. Buffalo city, and the Tonawandas, and even our own little village, sewer into the Niagara River, and in return we, like the cities and villages below Buffalo, pump up the river water and force it through our hydrants, and some of our people, and many children among them, use that same river water for drinking purposes.

In an address on "The Farmer and Public Health," Dr. George G. Groff, of Pennsylvania, at the 29th annual meeting of the Pennsylvania State Board of Agriculture, said:

"Water supplies should be contaminated as little as possible. Animal waste of all kinds is of too much value to be thrown into streams, and besides, no one has any moral right to pollute

and impair, for human use, a natural resource given for the good of all. Buildings should not be drained into streams and especially no privy, cesspool or sink should be allowed to empty into a stream. Privies should not be erected over streams. Farm sewers should not discharge into streams. The most harmful of all waste is that from human bodies, and this we should keep out of streams. Night soil should not be thrown into streams, nor should it be placed on fields near streams into which it may be carried by rains."

Fortunately, however, the fresh waste products of the body, or of the household, are not always a source of danger, or in any way poisonous. A person in normal health can easily withstand the attacks of many germ diseases. But we are not always in normal health and therefore disease proof, and I prefer not to run unnecessary risks. I would as soon drink mild poisons as quench my thirst from the village hydrants.

I have at times let my cattle drink from the creek near by, as this has generally been found free from typhoid fever germs, although somewhat polluted. But no milk will I drink or eat from cows that drink the hydrant water, even if there may be doubt that the germs can be transferred to human beings through the medium of cows' milk. This is too serious a matter for me, and there are few problems on the farm worthy of more thorough consideration than that of the water supply. In many cases little mountain springs can, with comparatively moderate expense, be piped directly to house and barn. Such chances are too good to be left unutilized.

Tobacco Stems for Manure

A Leechburg, Pennsylvania, reader writes: "Please give the value of tobacco stems for manure. I got five one-horse loads last fall for the hauling. I scattered them over the land, on parts using also stable manure. I desire to plant cabbages on this ground."

Tobacco stems are well worth taking care of. An average sample contains over two per cent of nitrogen, about six tenths per cent of phosphoric acid and about six and one half per cent of potash. In other words, in a ton of stems we find forty pounds of nitrogen, twelve pounds of phosphoric acid and one hundred and thirty pounds of potash. These plant foods may not all be immediately available, yet they can be made so, to a large extent, by composting with stable manure, or will become so in the course of time. Tobacco stems are easily worth eight or ten dollars a ton for manurial purposes, and can often be had at a mere nominal price.

For crops which require large amounts of potash, like cabbage and cauliflower, tobacco refuse of all kinds is especially useful, and I would procure all I could of it. My preference would be to place the stems in alternate layers with stable manure, especially horse or sheep manure, let the mass come to a heat, and then fork over repeatedly so as to get a nice compost for applying to the cabbage patch before plowing. If allowed to become well rotted it might also be used as a top dressing. Tobacco stems have additional value as an insect repeller, and if used freely would have a tendency to keep the cabbage maggot in check.

A. Greiner

Salient Farm Notes

Household Helps on the Farm



LAST winter a farmer living in Michigan wrote me a long letter detailing his many troubles, and asking advice concerning many matters, and finally winding up by stating that his wife was not strong enough to do the household work, and if he could not obtain help for her he would have to quit farming and go at something else. He said he had hunted the country over for a girl, and also advertised for one, without success. He said he had, in desperation, offered all sorts of wages

without being able to induce any of the many girls he met to leave their homes and come and work for him.

Before this letter was answered another came from a farmer in Iowa stating that he, also, would be obliged to quit farming because he could obtain no help in the house. It was plain to him, he said, that he must have help or lose his wife, and he would not lose her "for a million dollars!" He asked if I could give him any hints or suggestions that would be of use to him. He said he knew how to farm, and that was all he did know, and he might as well go to sea as to go to town and get into some business he knew nothing about. Herein he was different from most farmers. A majority of them seem to have the idea that they can manage a business in town better than they can the farm.

I wrote this man a letter, and sent a copy of it to the other. Last August the latter wrote me that he had tried my plan and it worked "pretty well." He thought it a little expensive, but it had helped him out of "a bad mess." Then he stated how and where he had secured his help. The other man failed to report, so I wrote him. Two weeks ago I received a letter from him, in which he stated that he had secured help in the way I had suggested, and while it was not just what he would like, it was vastly better than none. He is hoping to do better in the near future, but at that time there was nothing better in sight.

What I suggested was for him or his wife to go to some family in the neighborhood where there was a girl that could be spared part of the time, and offer her a certain price per hour for two to six hours five or six days in each week. On wash-day she should receive fifty cents for the washing and scrubbing, and as soon as it was done she could go home. The girl could live at home, and be away from home only a part of each day, and earn good wages, like working girls in town. He said he had to do some high and lofty coaxing and explaining before he could induce the girl he wanted to give the scheme a trial, but after she had been at it a month she declared she would work for them that way as long as they wanted her—or until she got married. During haying and threshing she stayed all day for fifty cents a day. He said his wife arranged the housework to fit the new conditions, and was doing nicely. She added to her stock of dishes and cooking utensils, so that she did not have to wash any dishes after supper, but simply set the table for breakfast and covered it over. On wash-days she washed the dishes herself. On all other days the girl washed them when she came. By this arrangement the girl did the greater part of the ordinary work while his wife attended to that part requiring more skill than work, such as cooking, baking, etc.

I had warned him that girls are human beings and not machines. That they appreciated help in the way of conveniences tending to make their work easier, and an occasional lift with heavy things. Also that they would not spurn a little present—something pretty and useful, even if it cost but a few cents. That a passing word of praise once in a while sounded pleasant to them and would not be wasted. That prompt payment at the end of each week was another strong inducement toward making them faithful and painstaking.

That both of these men succeeded in obtaining help by this new arrangement simply tended to confirm my own experience. It has proved satisfactory to me, and I think will to hundreds more if they will try it. Girls do not like to leave home and become servants in the families of farmers—that is, girls of any spirit. And I don't blame them. Two thirds of them become the next thing to slaves in such positions. They are called at four or five in the morning, and after going almost the entire day rarely get their work finished before nine at night. Sunday is not much better than any work-day. They are expected to work, work, work without ceasing and without tiring, and for pay which nothing but a Chinaman would consider even fair for the service. And this is why girls with a spark of independence and romance in their make-up do not like to become "hired girls." They would rather go to the city and seek places as clerks, sales-ladies, etc., at almost starvation wages, because there they do have a little time of their own, and they do feel that they have a spark of independence left. I asked a girl why she left a place I supposed was a good one. "Well," said she, "I got lonesome. They are nice folks, and the pay was good, and prompt, but I could not go anywhere, and there was nothing to see out there but a lot of cattle, hogs and ducks, and just the home folks, and a few other old married people that called occasionally. I want to be where I can see some young folks and hear something besides crop and stock talk."

The best way to consider this girl-help question is to put yourself in the girl's place. Everybody who has a thimbleful of brains knows that all girls love to associate with people of their own age, and people who consider them their equals socially, and this not once in six or eight weeks, but several times a week. They all have romantic day-dreams of beaux, of marriage and of homes of their own, and they are constantly upon the alert for the coming man, and want to be where he can find them. They like to look neat and attractive and not be so eternally tied to labor that they have no time to entertain with chat and smile. Many women who hire girls forget that they once were girls themselves, and they have no patience with those who have "fellers," or "followers," as they sneeringly term them. They forget that they once were equally silly about such matters. The simple facts are: Very nearly all girls are as hungry for a little money as bees for honey, and they are ready and willing to do lots of work to earn it, provided they can make engagements that do not cut out their independence and the time they so much desire for their very own. Almost every one that has a home worth calling home does not want to leave it, if she possibly can avoid it, until she goes to one of her own. They are willing to work, but don't want to give up their hold on home and the advantages it gives them. Who can blame them?

Our plan seems to have met this condition, for we have no difficulty in obtaining all the help needed. To be sure, we may be more favorably located than many who are in need of help in the house, but I think there are very few localities where help cannot be secured on this plan. We have found girl help far more diligent and faithful than male help, and the girls invariably appreciate a square deal, and respond in like manner. I know one who walks two miles three mornings every week to work in a farmer's family, and she is as rugged as an oak. On her way she meets a school teacher who walks the same distance five days a week, and she often declares she would not exchange places with her, even for the larger pay.

Back to the Farm

A Kentuckian, who is a fireman on a locomotive, states in a letter that he "slushed about in the mud and snow on a farm for twenty dollars a month until he got tired of it." Then he secured his present job at sixty-five dollars a month, which has been increased in two years to nearly double that amount, and he would not exchange places with any small farmer on earth. He states how much he earns, but not how much he saves. The savings count for more than the earnings. If he gets along all right without accident there will come a time when he will want to go back to the soil—to his old companions, the birds, the bees and the sweet, pure air and restfulness found only on the farm, be it small or large, where one can plant trees of his own and grow the fruits he especially loves. Where he can plant seeds and watch them spring into living things that will grow into vegetables that will yield him a feast he cannot buy. Where most of the things that come to his table are fresh from the soil, with a flavor never found in stuff bought on the market. I say he will want to get back there when his muscles begin to stiffen, and the thing for him to do now is to save all he can with that end in view.

The small farm gives one advantages to be found in no other place on earth, and he will admit it if he will sit down by himself and study the matter over carefully. The small farmer who owns his farm is practically independent of everybody. He is his own master, in fact. He is subject to no union boss, to no political boss, no employer who won't be pleased with anything he does. He can grow what he is fond of and leave the other out. He has time to grow his stuff to perfection by giving it the best of care. He can always find a market for the best, at good prices, even when the market is loaded with ordinary stuff. He can sit in his own house when a storm is on, by his own fireside when blizzards rage, under the shade of his own trees when the weather is uncomfortably hot. What more can any sensible man ask for? He has work enough to do to keep him healthy, and not enough to distress him. The Kentuckian should save his earnings—as should every other young man, for that matter—when he knows as well as I do that money will buy him this independence and these advantages. For when they are bought with money that has been earned they will be appreciated at their worth.

Fred Grundy

Cows Paid for the Farm

EXAMPLE is better than precept, it is said. I am quite sure it is more effective, and I expect much from it. I have a factory, the patrons of which are all trying to excel each other in the quantity and the quality of the milk they send to it. I use the Babcock test in this factory, and to its use I attribute the great improvement in the quantity and in the quality of the milk which has taken place since I first adopted it.

About six years ago a farmer moved from a rented farm onto one in the district where this factory is situated. When he was on the first farm he thought he was doing exceedingly well if he drew from the factory thirty-five dollars a month. After he had been sending his milk to our factory for about a couple of months, he came to me and said, "Mr. Eager, I want you to lend me some money."

I said, "Very well; do you mind telling me what you want it for?"

He replied, "I want to buy some cows. I see the other patrons taking three or four cans of milk to the factory every morning, and there I am with one can and that not always full. I can't stand the sight any longer; I am going to catch up with those fellows, that is, if you will lend me the money to buy cows."

I was very glad to do so.

As I have already said, that farmer before he moved was content to receive from the factory thirty-five dollars a month; in two years from the time he first came to me he was drawing over one hundred dollars. He enlarged his herd; he improved it, and to get the best results from the test, he sent his milk to the factory in a condition such as he had never sent it before. At the end of six years he had a farm of his own.—William Eager, in *The American Cultivator*.

Oil Meal

Since calling attention a few times lately to the great value of linseed or oil meal I have received a number of letters asking if in my opinion it is advisable and would pay to buy oil meal at the prices dealers are asking at present, thirty-two and thirty-five dollars a ton. If my opinion would count, that is decidedly in favor of using some oil meal where all dry feed is fed, almost regardless of the price. Where roots or silage are fed the urgency for oil meal is not so great. Pure oil meal has a cooling and relaxing effect on the system, promotes the digestion of the other foods and supplies the protein that is so often lacking in the average ration. The present quoted prices do seem a little high, but other feed prices do not look much better; in fact, some considerably worse when viewed correctly.

In a feeding experiment conducted for the production of beef at the Nebraska Experiment Station, R. H. Smith says: "The records of this experiment indicate that oil meal has a value nearly three times as great as bran. To be more explicit, if the bran in this experiment had cost twenty dollars and eighty cents a ton, the oil meal fifty-nine dollars and sixty cents a ton and the cottonseed meal forty-five dollars and sixty cents a ton, the net profits would have been the same in each case as on corn and prairie hay without a protein concentrate." I might say that corn and prairie hay were the basic feeds in this experiment.

Yes, it pays to feed a limited quantity of oil meal to the cows, young stock and horses at present prices both in the net feeding value you get and the better condition your animal is in to produce milk, make growth or furnish energy.—L. W. Lightly in *National Stockman and Farmer*.

Raw Rock Phosphate as Fertilizer

In our own experiments, where raw rock phosphate has been applied to corn stubble or oat stubble, without the addition of manure, and at the rate of from one thousand to two thousand pounds an acre, it has produced an increase in the following corn crop amounting to only three or four bushels to the acre as an average of more than eighty separate tests. The variation in increase is from less than one bushel to more than seven. We have been using rock phosphate in Illinois only for a short time, and our regular system of experiments precludes the use of manure during the first rotation, so that we have not yet obtained sufficient data from our own experiments from which to draw final conclusions. The Ohio Experiment Station has conducted experiments with the use of raw rock phosphate in connection with manure, as compared with manure alone, for ten years, including 1906. The average of the first nine years showed that rock phosphate at eight dollars a

ton, when mixed with manure, produced increases in a rotation of corn, wheat and clover, above the increase produced by the manure alone to make an average return of six dollars and ninety-seven cents for every dollar invested in raw rock phosphate, figuring the corn at thirty-five cents a bushel, wheat at seventy cents a bushel and clover hay at six dollars a ton. Acid phosphates used in the same way have given a return of four dollars and fifty-nine cents for every dollar invested.

I would advise mixing one hundred pounds of rock phosphate with every load of manure, and applying the manure at the rate of eight or ten tons to the acre, or I would advise applying one thousand pounds to the acre of raw rock phosphate to the second growth of clover, and plowing this under for corn, either in a three-year rotation with two crops of corn, to be followed with oats the third year and clover the fourth year. So far as I have heard, the Illinois farmers who have used raw rock phosphate as it should be used, in connection with decaying organic matter, have obtained satisfactory results from it, and they have the satisfaction of knowing that their land is increasing in its phosphorus content, and is not growing poorer in that element.—Prof. C. G. Hopkins in *The Rural New-Yorker*.

The Morgan Horse

The New England Farmer has noted, with great satisfaction, the steps which have been taken to save from extinction this meritorious breed of horses, and is minded to help in the good work of perpetuating the characteristics of the old-fashioned Morgan type. Our readers, being farmers, cannot fail to appreciate this type, in which beauty, intelligence, endurance and speed are combined to make a perfect family or road horse.

The Morgan excellence is acknowledged in high places, both at home and abroad. The United States government, through the medium of its experiment-station work, has undertaken two breeding experiments with horses, in both of which Morgan blood figures.

One of these is to produce an American carriage horse from the American trotter as foundation stock. Of the eighteen mares purchased as foundation stock for this experiment, six were from Wyoming, their ancestors having been bred for five or six generations in that state, starting from an importation of horses, largely of Morgan stock, from the central West, on which thoroughbred and standard sires have been used. The stallion to be used with these mares is Carmon, 32917, A. T. R., in whose pedigree the names of Ethan Allen, Black Hawk No. 5 and Sherman Morgan appear. These horses are on the farm of the Colorado Agricultural College.—New England Farmer.

Humus and Fertility

Experiments show that where the supply of humus is maintained the supply of plant food is also maintained. The Minnesota station found in the Kittson County experiment that after two years of a proper rotation in which the supply of organic matter was kept ample, or perhaps increased a little, that the amount of nitrogen slightly increased while the amount of phosphorus and potash remained practically the same. Then farmers know that when they keep the supply of humus ample in their soils they can always produce crops. I saw a field last week that has been farmed for seventy-seven years, and it produced eighty-five bushels of corn to the acre last year. For the past twenty years it has been rotated as follows: Corn, corn, small grain, corn, small grain, clover meadow two years, pasture two years and then the rotation repeated. The last year the ground was in pasture it received a coat of all the manure the farmer could gather around the lots. Twenty-five years ago this farm was considered worn out. It was called a clay farm and never produced more than thirty bushels to the acre. However, when the present owner took possession and followed the systematic rotation given above, the fertility began to increase, till it is the richest farm in Illinois. Not a particle of commercial fertilizer was applied in that time, but the productiveness of the soil was increased.

Let the reader look around him in his own neighborhood. There is a farm in every neighborhood that has been built up in this way, and what one farmer

has done in every neighborhood can be done by every farmer in that neighborhood. The great need of the worn-out soil is humus; the great need of the soil whose productiveness has begun to show signs of decreasing is humus; if the supply of humus is maintained, the fertility of the soil will also be maintained.

Grow more clover or alfalfa, rotate your pastures with your crops and apply all the manure that accumulates around the lots, and we believe that you will never be confronted with a worn-out farm.—W. G. Sherlock in *the Nebraska Farmer*.

Feed the Clover Hay

We saw a farmer selling clover hay by the carload at a nominal price in a country where commercial fertilizers are now purchased to use as a top dressing on fields where potatoes and corn are grown. We are of the opinion that such people do not read agricultural papers, because these have taught, again and again, that the fertility in a ton of clover hay would cost at present market values more than the price of the hay. Men who farm lands worth fifty to a hundred dollars an acre and are on the eve of buying commercial plant foods to maintain the fertility of their soils must study such propositions.

It is said on good authority that a ton of butter when sold from the farm takes about twenty-five cents' worth of fertility from the soil, and at present prices would be worth nearly six hundred dollars to the producer, whereas a ton of clover hay represents about eight dollars' worth of fertility, and when sold on the farm would bring only four or five dollars. There was a time in the history of our farming when we were ignorant of these facts and sold clover hay, but it is now fed to the cows, and we sell butter-fat instead of the hay. Every farmer and stockman should study this problem of fertility and feeds—otherwise he may waste with a shovel and save with a spoon.—The Northwestern Agriculturist.

Covering Thin Land with Grass

Our readers south of the Ohio River have one marked advantage over those in the Great Lake region in the handling of worn and thinnish land, and that is the ease with which they can make sods on such land, through the use of cow peas, to produce a coat of manure for the surface of the ground. The secret in getting a stand of grass on thin land is in having the soil firm, and having a supply of rotted vegetable matter at the surface. That furnishes the conditions wanted by a small grass or clover plant. Where cow peas grow well, as they do in the Ohio valley and southward, the rich vegetable matter can be secured. Lime, where needed, phosphoric acid and a coat of cow-pea vines rotting in the surface soil will insure a good sod nine times out of ten. If the peas grow too heavy to be chopped up by a disk harrow, a portion of the vines should be made into hay; but always we should remember that the peas are first to supply a full coat of organic matter for the sod, and enough of the growth must be left to do this. A disk harrow used several times before the vines fully mature can reduce a pretty heavy growth of vines to such condition that seeding in the soil can be done. Leave the ground firm except at the surface, make the growth of peas serve as a coat of manure on the surface of the ground, and get one or two inches of fresh soil in which the seed may bury itself and take root, and all will be well. This is the one feasible plan for great areas of thin land in Virginia, Kentucky and Tennessee, and I have had entire success with it north of the Ohio river.—Alva Agee in *the National Stockman and Farmer*.

Making Cream Cheese on the Farm

A splendid way to use milk is to make cheese for home use. The whey is just as good for calves and pigs. I feel sure if farmers generally knew how easily and inexpensively cheese can be made, many more families would enjoy this highly nutritious food. To make a three-pound cheese that is good after four weeks, and better with age, take five gallons of milk, cream and all, if it has set for a time, and heat till about milk-warm. Dissolve one half of a No. 2 rennet tablet in half a teaspoonful of cold water, stir well into the milk and add one tablespoonful of salt to the milk; then stir. Remove from the fire and let

stand three to seven minutes, when it will be thick, like clabber. As soon as it becomes solid clabber it is ready to break up. Then with the hands, spoon or other article stir the clabber, or curd, as it is now called. This separates the curd from the whey. Let it stand and the curd will settle to the bottom. Then with the hand press the pieces, say one inch thick. Put into a crock, pour over it hot (not boiling) water. Stir with a spoon, and let it set till it seems tough like leather, which will be in about three minutes. Take out of the water and again cut in pieces, as it has probably run together. Salt as for butter and it is ready to press.

For the press, take a gallon apple or syrup can and melt off both ends. Now make ends for the can from inch boards, to just fit inside the can; these are followers. Set the can over one follower and line the can with a well-greased cloth long enough to fold over the top. Pour in the curd, put on the cloth left to fold over, then put in the other follower. Set where it can drain, and place a fifteen-pound weight on top. Leave twenty-four hours, then remove from the press. Take off the cloth and grease the cheese box. Lay on a plate in a screened box. Grease and turn it every day till it is ready to use.—J. C. James in *the New England Homestead*.

The Manure Spreader

Nothing can be of more importance to the farmer than the fertility of his soil. It is the bank from which he draws large or small crops, and like any other bank account, drafts are honored in proportion as deposits are made.

The chief source from which the Western farmer is able to supply valuable plant food is from the manure made upon the farm, and how to care for and handle it to receive the greatest possible returns in economy of labor, and from the elements of plant life in the manure, is a problem that should interest every progressive farmer more than it does.

One may yet see much manure piled in the fields. This wrong method is still practised to quite an extent. When manure is drawn to the field it should be spread thin and even. As a rule it is applied too thick and often in bunches and unevenly. It is better to go over the farm once in four years with a light, even dressing of manure than to apply heavily and get over the ground only at long intervals. The old idea that if too much manure is applied for the growing crop it will keep for the crop to follow, is somewhat of a fallacy. This kind of reasoning results in the loss of much of the very best kind of plant food.

Manure cannot be applied in just the right quantities with the fork, and it is always left in a coarse condition. There is no way in which it can be so well applied and so cheaply handled as by the use of the manure spreader. All kinds of manure, including ashes, lime, land plaster, etc., are readily distributed by this machine. It is torn to pieces and spread evenly and as thick or thin as may be desired, and without any hard, laborious labor. From the time the team leaves the yard there is no stop until they return with the empty spreader. It spreads as fast as the team will walk, and is automatic; the driver, from his seat, regulates the amount to be spread by means of a lever, and the manure is applied as evenly as snow can fall in a still air.

The editor of the *Agriculturist* has spent many hours on the seat of a manure spreader and is familiar with every advantage the machine has over any other way of doing the work. We were much surprised to find that in spreading as heavily as desired we were making the manure go about twice as far as when spread by hand. We tested this matter thoroughly, spreading a load by hand as thinly and evenly as it could possibly be done, then using the machine in comparison. We could easily spread five big loads with the spreader while one was being unloaded by hand, and in quality of work there was no comparison. The manure was all torn to small particles by the spreader and every inch of ground covered with plant food.

Spreaders are made in sizes from fifty bushels up to one hundred bushels and may be attached to any farm wagon or can be purchased mounted. . . . There is no machine used on the farm that will give greater returns than a manure spreader. Such a machine will pay for itself in a short time in labor saved, to say nothing about the direct benefits derived through proper application of the fertility of the farm. Every farmer in Wisconsin needs a good sized spreader as bad as he needs a binder or harrow, and if he will take good care of it he will not need to buy another during his lifetime.—*Wisconsin Agriculturist*.

Alfalfa

I SAW an article in the FARM AND FIRESIDE of December 1st in regard to alfalfa, saying that alfalfa is one of the hardest weeds to kill.

Now, here in Colorado we do not think so. If we wish to kill the alfalfa plant, we file the plow so it is sharp, put on a good team, and plow as light a furrow as possible—say three or four inches deep—so as to cut off the alfalfa at the bulb. Then we leave the land alone for three or four weeks, or until it is dry, and by that time the alfalfa is dead. If you plow deep, the alfalfa will grow better than before plowing. I have seen large fields planted to alfalfa for a few years to fit it for orchards; as, where the ground is hard, the alfalfa roots loosen the soil.

In regard to making alfalfa hay: Do not dry the alfalfa in the sun, but follow the mower at once with the horse rake and put the alfalfa in tumbles while it is green, and let it so remain until it is dry. In that way the leaves will stay on the stems and the alfalfa will be worth twenty per cent more than when dried in the sun.

Colorado.

EBEN W. BARKER.

Value of the Manure Spreader

My experience with the manure spreader teaches me that the modern method of applying manure to land is far in advance of the old practise. I regard this machine as an economical necessity on any well-managed farm. I find that by its use the manure can be hauled out and spread on the field each day with but little more labor than is required to throw it in a pile outside the barn door.

In applying manure with the spreader, it is put on uniformly, and all parts of the field are equally benefited. When the manure was dumped in piles, it frequently happened that the work of spreading was postponed for some time, and the result was that much of the fertilizing value of the manure leached out or was lost through fermentation. The manure spreader not only saves the plant-food elements of the manure, but also saves time and labor, as the work is all done at one time. It does two very important things, and does them well—it thoroughly fines the manure, and distributes it evenly.

Apparently many farmers have more manure than they want, and instead of prizing it as a means of increasing their crops, they look upon it as a nuisance, to be gotten rid of with the least possible labor. If they will give the manure spreader a trial I am confident they will find it to be a machine they should use.

When manure is applied by using the manure spreader the effect from it on crops is much greater than when spread with the fork. Where there is plenty of stable and barn-yard manure produced, which is saved and applied with a spreader, the increased results will frequently pay for the machine in one year.

Manure should not be piled out at the side of the barn and left there very long, as it will lose much of its value. As soon as made it should be hauled out and spread, thus getting the most out of it as a soil fertilizer.

As there is no great rush of farm work now, it is a good time to clean up the stables and barn yards; and if kept so until spring, there will be no bother in having to stop the field work.

Illinois. WM. H. UNDERWOOD.

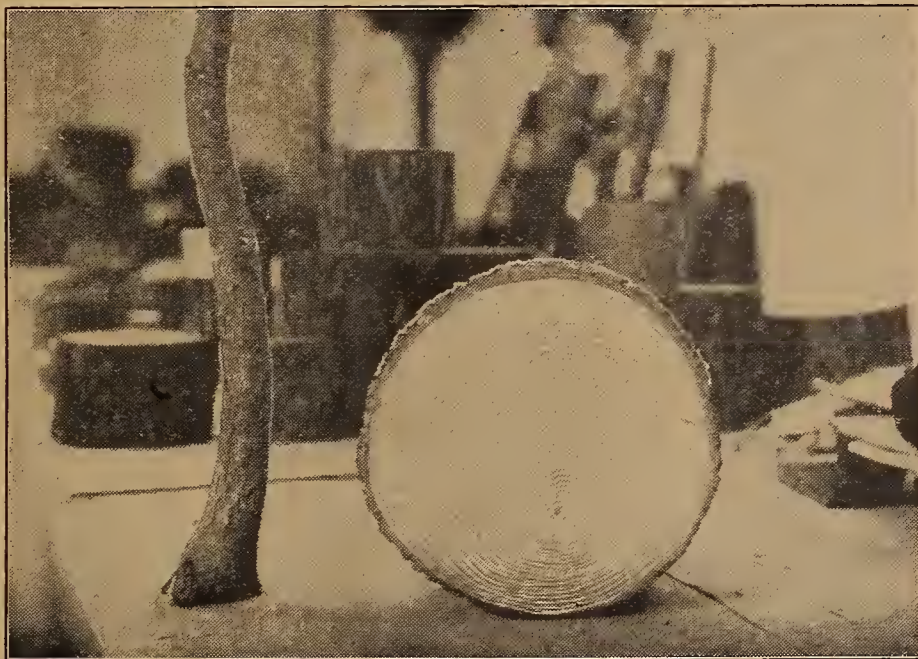
Heavy Cropping

It would almost appear, from the frequently expressed opinions of farmers themselves, that what is termed high cultivation is not an economical process; that it is bad, in fact; that it is more economical to farm low—that is to say, to use a smaller quantity of manure, and less concentrated food—and to till in a general way upon an economical principle as possible. I do not believe that this plan is either rational or economical. On the contrary, practise suggests that the lower the prices of produce, the more important it is to increase the yield in order to maintain the value of the gross return, and in order to do this high farming is essential. High farming does not mean experiment farming, or the application of costly manures without a full knowledge of the results which they assist in effecting; but it means rational farming, clean land, thorough cultivation, and the provision of abundance of plant food with the object of maintaining as large a crop as possible.

I can call to recollection a number of instances of heavy crops which might not be accepted as actually correct by the general public. But because one has not had practical experience of abnormal yields it is no reason why statements to the effect that they have been produced should be rejected. Two crops of oats I may mention, one on a farm close to Medicine Hat, in Alberta, Canada, which thrashed out 121 bushels to

the acre, and the other on the Canadian Government farm at Indian Head, Saskatchewan, which produced one hundred bushels to the acre. Now, in both cases, on land of similar quality, occupied by farmers close at hand, less than half this yield was produced, and solely—as I was given to understand—on account of the want of thoroughness in cultivation. Whether the extra fifty bushels or so, which might have been obtained by following the same plan, would have been worth the extra cost in cultivation is a matter for the owners to determine, but it is quite certain there is no recognized system of high cultivation which, producing a double crop, would not infinitely more than pay for the extra cost as between the average half-hearted system of farming, which so many follow, and the highest class of farming which is practised by the up-to-date agriculturists.

Professor Wrightson, in speaking of oats, says he has raised 124 bushels per acre, and that he had heard of 160 bushels. This being the case, it is quite certain that the average yield of oats, like that of many other crops, is considerably short of what it ought to be, making every allowance for the influence of



A STUDY IN FORESTRY

the seasons, inferior soil and of the accidents, which happen to us all in a more or less degree. Some years ago, I read of a grower who had grown 106 tons of mangels to the acre. This is enormous in quantity, but the result has been that many statements have been made quite confirming the fact that such yields are possible, and that, in a word, have on occasions been exceeded.

When in Switzerland, years ago, I was shown a large area of grass which had cut five tons of hay to the acre. It is true that the land was of excellent quality, but it is also true that the heavy yield was owing in a large degree to the system of liquid manuring which was followed, and to the fact that the grass is mown three and sometimes four times in the season. I am not able to give the weights, but I have seen as large crops of rye grass growing on a farm near Edinburgh, in Scotland, also upon soil of high quality, and with the assistance of liquid manure.

Instances might be repeated, if space permitted, in which wheat, cabbage, clover, alfalfa, have grown what would be considered abnormal crops, but it would appear that we ought rather to consider our average crops as abnormal, and not to remain satisfied unless we are able to exceed them very largely. A great factor in the question is undoubtedly that landowners are often overacred, that in consequence they cannot provide sufficient manure to maintain it in the highest condition, that artificial manure is not always appropriate, and that when it is appropriate it is used in comparatively small quantities because of the fact that it has to be bought. We therefore come back to the old point which I have raised before: That by high cultivation a great deal more can be grown upon fifty acres of some soils than is now grown upon one hundred acres which are cultivated in the ordinary way, and that in consequence the cost of food produced is immensely smaller, and the whole system more rational and economical.

Alberta, Canada. W. R. GILBERT.

Farmers' Correspondence Club

A Study in Forestry

The picture represents a part of the forestry exhibit at the state fair last fall. The ash block in the foreground shows very plainly the annual growths or rings, one of which is added each year. These are much wider on the upper than on the lower part of the block, showing that for some reason one side of the tree added more to the circumference than the other, making the heart of the tree very much to one side of the center. There might be various reasons given for this, one being that on account of a thick growth of trees at one side and open space at the other the limbs were mostly on one side, producing a larger growth of body wood on that side. While this is in some instances doubtless the cause of irregular growth, in this particular case this condition did not exist.

The explanation is to be found in one of the most wonderful efforts of Nature to improve the young tree and remedy an abnormal condition. To fully understand this look at the young sapling in the foreground and observe the double bend or crook. Now, as this tree grows, in a few years it will be found to be-

come much straighter, and consequently more valuable.

This is brought about by a larger new growth each year on the inner or concave side of the bend, which would of course tend to fill out and straighten the tree at that point. Above, at the other bend, the larger deposit will be at the opposite side of the tree. As this process goes on year after year we find the crooked sapling becoming a straight tree, which, if sawed through at the middle of each bend, we would find the condition shown in the ash block, the small ring growths each time being nearest the convex side of the bend.

Ohio.

HORATIO MARKLEY.

Growing Leguminous Plants

A few years back it was common to hear of worn-out soils, especially in sections of the South, but now all this is considered absurd, and there is only run-down land to be heard of in this connection. Land, like everything else, needs restoratives when it is subjected to constant cropping that saps the vitality of the soil without imparting any of the recuperative elements. Regarding the same topic under discussion from time to time, it has been argued that the nitrogen supply of the world is so small that in a future day agriculture would be at a standstill and the people of future centuries would face starvation.

But nothing has been proved so conclusively otherwise as this theory. The great prosperity of the country and the production of large crops are due to the important legumes that have in the last few years become such factors in the agriculture of the South. Their importance and value are attested by the area over which they are now being planted and the continual demand for seed at high prices.

The cow-pea crop has become one of the most profitable in the South, and to it is due the general advance in farming methods. Cows and hogs are to be found on farms where cow peas have been

planted for some years, and the longer a man has been at it, the better his farm and the higher the grade of his stock. So many varieties of cow peas are to be had that it would be a fruitless attempt to try to tell about them here; but there are sorts adapted to every section of the country, and now is the best time to investigate for next season, and get seed that will suit the particular section where they are needed.

The growing of winter crops is one that is now attracting the attention of the farmer in the South, and extensive trials are being made with several different nitrogen-gathering plants, many of which promise to be successful. Bur clover has probably been planted more largely than any of the new crops. The crops are valuable, if only for cover crops in winter, protecting the soil from the washing rains and preventing leaching. The work should be more general in every section where the land seems to be worn out, as the nitrogen stored in the soil will be of great value.

Georgia.

J. C. McAULIFFE.

Canning Factories

The article on "Home Fruit Canneries" struck me very favorably, inasmuch as there are thousands of farmers here and farther west who are induced by canning factories to plant a certain number of acres of tomatoes or other vegetables each year, and finally find themselves with tons of such products on hand when the factory refuses, on one pretext or another, to take any more of the product.

I have a tenant on my farm in southwestern Missouri who planted two acres of tomatoes the past season, and he had a contract with the nearest canning factory to take all his tomatoes at thirty-five cents a hundred. When about half the tomatoes were delivered the canning factory refused to take any more, under the pretext of being short of cans, and the tenant's loss amounted to about fifty dollars. Now, in my opinion the factory should be obliged to refund the man for his loss, because he certainly was not to blame for the shortage of the cans, as the factory knew about how many cans they needed.

Missouri.

J. M. LANDVET.

Public Guide Boards

With the extension of rural free delivery the facility has been much increased with which the traveling public may recognize or identify the country places by which they pass. Possibly diffidence has deterred many from placing their names at the entrance to farms before the rural delivery of mail inaugurated the general custom.

In actual travel the writer has experienced no little advantage and satisfaction in this information placed at the entrance to lanes and by-roads. Unnecessary driving about and inquiry for persons wanted is a loss and annoyance to all concerned.

The maintenance of guide boards at cross roads and forks is less practised than formerly; this policy of decline should be checked and systems of guide boards should be established wherever possible. The information afforded in this way is a courtesy that, from the nature of the case, is tendered by strangers to strangers; but few of us are not at some time on a strange road and in a position to desire the directions which we have been slow in affording to others. Let no prejudiced conception of the traveling public lead us to assume that their interests are alien or antagonistic to ours, or that the public announcement of routes is not a mutual advantage.

Ohio.

Geo. P. WILLIAMS.

Orchard Grass for Hay and Pasture

There has not been enough said about orchard grass for hay and pasture. It is our second-best grass for hay and pasture—clover first, orchard grass second. The two can be successfully sown together, as they ripen about the same time.

Orchard grass can be cut twice a year by cutting the first of July and the first of October. This gives nearly one half more feed than timothy.

Some may say that it is not as good as timothy hay and does not make as good pasture. I owned a farm once with the meadows and pasture principally all orchard grass, and I always had plenty of grass and my cattle did just as well as my neighbor that had timothy. I could pasture one third more stock to the acre than he could. This is why I say sow orchard grass for hay and pasture.

West Virginia.

C. C. HUDKINS.

Successful farming depends much on improved seed. Primrose flaxseed (No. 25) yields over three bushels more to the acre than old varieties. No. 25 was bred and introduced by the Minnesota Experiment Station.

Profits in Celery

MR. M. GARAHAN, a well-known market gardener of Pennsylvania, gives in Rural New Yorker the expenses incurred in growing an acre of celery as \$446. This includes \$35 for a ton of fertilizer, \$80 for forty tons of stable manure, \$100 for plants, and \$25 for lumber used in blanching. The returns, however, for the seven hundred dozen bunches, at \$1.20 less ten per cent commission, came to \$756, leaving a clear profit of \$310. This, as the profits "under quite normal conditions," is surely a good showing and should satisfy any grower. An inexperienced man, however, could not and should not count on such returns.

The True Egyptian Onion

Somebody recently asked me whether I ever grew the true Egyptian onion. Mr. Beaulieu, of Long Island, says there is no true Egyptian onion grown in America so far as he has found. It is not a hardy onion, even in the comparatively mild climate of Paris, France. Mr. Beaulieu favored me last spring by sending me a few bulbs of this onion. They grew rapidly and made large plants, but are decidedly coarse, and to my taste not of particularly desirable flavor. Whether they will live through the winter here or not I cannot yet say; but I would not be greatly disappointed if I were to lose them again so soon, and had to do without them. We had little use for them on the table, although I concede that they are interesting things in a garden.

Michigan Melon

Mr. Armistead gives it as his opinion that the Michigan melon mentioned by me in the November 15th issue is the "Lewis Perfection" introduced by a western New York seedhouse some years ago. It is a good one, whatever its name.

Santa Rosa Plum

A new thing in the plum line, the Santa Rosa plum, is now being heralded as a new creation of Luther Burbank, and one of the finest plums ever discovered or originated. I hope this is true. Burbank has given us some very fine things, and others that proved without practical value, especially here in the East. I am willing to wait until I can find out more about this new plum before planting it.

A Seedless Tomato

Now it is a seedless tomato that promises to spring a sensation. I refuse to be enthused over the prospect. I have kept cool over the seedless apple, and propose to keep my head even in the seedless tomato question. It is reported that both the New Jersey and the Wisconsin Experiment Stations have been making experiments in the production of a seedless tomato. The New Jersey types were obtained more as a result of crossing rather than as a wilful attempt to produce a freak, the fruit being of good shape and color, but of inferior size. The Wisconsin Agricultural University, however, has succeeded in making tomatoes seedless by giving to the plants excessive quantities of fertilizers. Young seedlings grown in ordinary garden loam were transplanted to three-inch pots in soil the same as that in the seed-box. Three weeks later the plants were transferred to the greenhouse bed, where the soil was made up in the same proportion as the pot soil. Commercial fertilizers were made up and applied at the following rate per acre: Nitrate of soda, 800 pounds; sulphate of potash, 600 pounds; desiccated bone, 1000 pounds. Two applications were made; the first as soon as the young plants had taken hold of the soil; the second one two weeks later. Professor Sandstein reports that almost all the plants thus treated were dwarfed, and there was a tendency of the plants to produce a much smaller number of seeds than is generally found in the ordinary fruit. On some of the plants the fruits were small, not larger than a good-sized walnut, almost solid and without seed, though in some instances the seed cavities were noticeable. When we grow some of the varieties of tomato, as of the Ruby type, for instance, on the greenhouse bench during the winter, especially in a rather cool house, we will most likely obtain solid, seedless and undersized fruits. At least this has been my experience. I once had a plant of this type that bore hundreds of specimens, all of which were entirely seedless—and a little better than worthless in a practical sense, although valuable as a curiosity, especially during the season of scarcity of the fresh fruit. Cuttings were made of this plant, and they gave seedless fruit while growing in the greenhouse; but the fruit produced seeds in the natural way when the plant was set into

Gardening

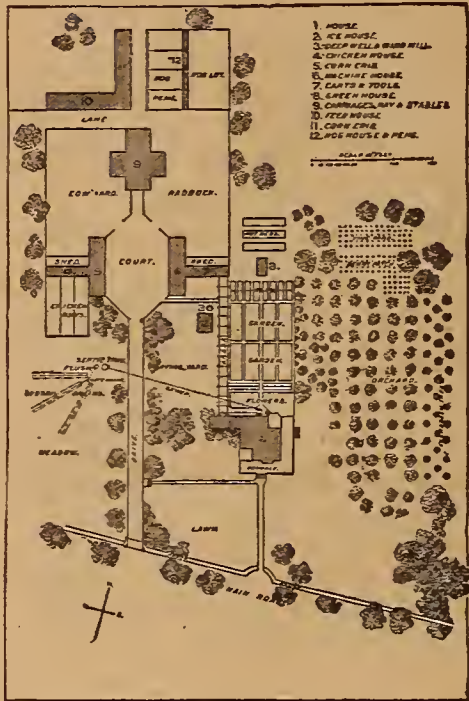
open ground in June. But what can we gain by making our tomatoes seedless? I do not object to the seeds. The tomatoes we already have are good enough for culinary uses, and the elimination of seeds in them will hardly be an improvement. Give me tomatoes with seeds.

Cold Water for Irrigation

An Ohio reader tells me that he has a well of very cold water, so cold, that he is afraid of using it for irrigating onions. I believe he has no cause for apprehension. The onion is a very hardy plant, and will grow just so long as the soil is not actually frozen. When thirsty it will take kindly even to ice water. I do not know that the temperature of the water makes much difference to any kind of vegetable plant. Even plants under glass hardly ever resent it if the water that is given them in the quantities needed is rather cold. Lettuce, radishes and vegetable plants of all kinds in the greenhouse or in frames will do just as well when watered with cold as with warm water.

Farmers' Home Garden

Farmers' Bulletin No. 270, on "Modern Conveniences for the Farm Home," by Elmina T. Wilson, C. E., formerly assist-



GENERAL PLAN FOR FARM-HOUSE GROUNDS

ant professor of civil engineering, Iowa State College, is pregnant with useful and valuable hints for the rural home builder, and a copy of it should be in the hands of every modern farmer for careful study.

But there is in it one thing against which I must enter a vigorous protest. On page 46 it gives a "general plan for farm-house grounds." In this the arrangement of the garden, the vineyard and berry patch is against all our modern teachings. In these days, when it is so difficult to secure reliable farm labor, we must try to arrange the garden and small-fruit patch in such a way that the necessity of hand labor, especially with spade, hoe, etc., is reduced to a minimum. We want the garden in one block, not in "beds," and the small and bush fruits as nearly as may be in few and long rows.

My own vineyard of about one hundred varieties of grapes is in almost a square block, each row having about ten or twelve vines, and this almost in the center of other cultivated lands. This was one of the great mistakes made in planning the planting. It is quite a task to give this vineyard clean cultivation during the entire season, simply because there is so much turning and so much waste space at each end. The whole planting could just as well have been made in two or three rows, and I would have taken much more pleasure in doing the necessary plowing and cultivating from end to end of the cultivated ground. We could also have had it so much easier to adjust the trellises, by having only few end posts needing bracing, instead of several dozens. In planting berry bushes I have been careful to avoid a similar mistake.

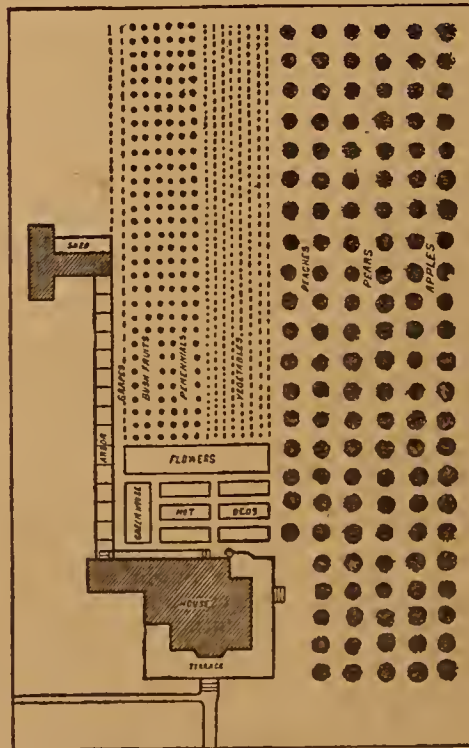
But notice the cramped, cut-up condition of vineyard and berry patch in Mr. Wilson's plan. This should never have had the official endorsement of the government, or Director of Experiment Stations Mr. Truc. The improvement I would suggest on this plan is given in the accompanying sketch. The arbor might just as well be mostly a grape arbor; and if

the two rows are not considered sufficient, another might be added. Next to this "vineyard" I would place the berry patch, consisting of currants, gooseberries, blackberries, raspberries, both red and black caps, then asparagus, rhubarb and other perennials, then strawberries, and finally the garden vegetables. Such an arrangement would economize labor, reducing the expensive part of it (labor by spade and hoe) to the lowest possible limit. This must be done if we do not wish to run the risk of having the garden neglected and becoming an eyesore, rather than a part of the grounds to be especially proud of and enjoyable. The flowers next to the greenhouse and frames may be arranged as a continuation (or beginning) of the rows of vegetables, or in beds and designs, as may be deemed most advisable.

Quality in Tomatoes

"Quality in this particular delicacy (the tomato) is measured chiefly by cultural methods and conditions of ripeness." This is a quotation from "Garden Magazine." It does not strike me as just right. I believe the quality of the tomato depends on conditions over which, unfortunately, we have only partial control. Let me quote again from the same paper: "The very best tomato is the result of strong young seedling plants kept growing from the very earliest stage through to maturity without a check; grown with abundance of space, giving free circulation of air through and around the plant, plenty of sunshine to give both color (which is appetizing) and sugar (which is essential to high flavor). With these conditions satisfied, then there is this final factor—permitting the fruit to fully ripen on the parent stem, picking it at the acme of condition. An overripe tomato is mealy and deficient in flavor."

In fact, however, the season is the predominant factor in determining the quality of the tomato. For instance, the season of 1905, with its lack of summer heat and excess of rainfall, gave us tomatoes of very inferior flavor. This usually delicious fruit was in fact so poor that I hardly did more that season than taste of the cooked tomato, and that almost the whole batches of canned tomatoes were thrown out with the kitchen waste because nobody cared to eat them. This was the case with all our tomatoes put up that season, whether canned early or late. But how different this last season (1906). Every mess of tomatoes, early or late, brought on the table during the entire season was excellent, and we could again say that we really did enjoy tomatoes; and every can of tomatoes that is now being



IMPROVED GARDEN PLAN

brought up from the cellar is eaten with old-time relish, not a speck being wasted. In both years we had the same varieties and have given them the same treatment. There were no serious blight outbreaks in either season. Of course, we should not expect to pick high-quality tomatoes from diseased vines.

It is probably immaterial in what way the plant is handled in its early life. We must aim, however, to have them make a healthy and thrifty growth after they are set in open ground, and to keep

them free from disease, if necessary by spraying. Sunlight and summer temperature will, after all, be found the most essential factors for giving us high quality tomatoes.

Chestnuts and Persian Walnuts

There was a time when I was quite enthusiastic over the prospects of profits in nut-growing. I planted Paragon chestnuts and "English" walnuts and filberts, etc. But I soon discovered that we did not have smooth sailing, by any means. The Paragon chestnuts have made rather slow growth, and a large proportion of the trees have died. It is true that they begin to bear young, and bear regular and full annual crops, unless a late frost kills the crop, as was the case with us this year in Ontario County. My one large tree here in Niagara County has borne quite a crop again, but as for the returns, one Bartlett pear, or perhaps a Seckle of the same age would have given me \$10 for its fruit to \$1 from the chestnut tree.

The "Norman Pomeroy" Persian (often called "English") walnut, a grove of which at full-bearing age, stands near Lockport, this county, is claimed to be perfectly winter-hardy. The original trees were grown in this county from nuts gathered from a tree in Philadelphia about fifty years ago. The owner grows seedlings for sale, and offers them at about \$2 a tree. Nearly twenty years ago I grew a few hundred walnut trees from nuts which I had gathered from two trees in my own yard in New Jersey. One of these trees I found still standing and then in fruit in September of this year. The seedlings were planted in various places, in this state and elsewhere. Most of them have succumbed to the winter's cold, and I am not aware that any of the surviving ones have ever borne a nut.

I have also planted a number of walnuts which the Government had imported from Central Asia, and which were claimed to be quite hardy. They have been regularly killed back badly every winter, and I have little hope to ever see them make large trees or bear fruit. Yet the fact remains that large Persian walnut trees are thriving and bearing regular crops in protected spots in various places of the Northern States, especially in the suburbs of Rochester, and other cities in this state, and also in Canada near Lake Ontario. But when I look for money returns, I would rather plant one Bartlett pear than ten "English" walnuts.

The Cherry or Husk Tomato

Some one asked the "Rural New-Yorker" whether plants of the ground cherry, or husk, tomato might be pulled up before frost and hung up, so as to give a continuation of ripe fruit, and was answered as follows: "The fruit when fully matured is about the size of the cherry growing enclosed in a husk. They are of sweet flavor, sometimes used for preserves. The plants when once established, will frequently reproduce themselves year after year from self-sown seed. It is therefore quite hardy, and the enclosed fruit is not injured by early frost, and usually ripens when the husk dries. To pull the vines and dry them as suggested would cause the fruit to shrink and shrivel up, rendering it useless."

We had plants spring up in the garden year after year, and usually did not take much account of it. We had some of them again this last season. The husks containing the fruit fall off to the ground at maturity, and may be picked up from under the plants from time to time. We gathered some this fall, and used them for pies. The latter were so excellent that I propose to plant some of the plants early, with the tomato plants, and set a little patch to give us pie material. I believe we might even now (November 8th) gather some specimens in the garden, as the husk protects them from injury by the lighter frosts of this season. The fruit is offered now and then in our markets as material for preserving, but could probably not be sold in quantity. I have also had the larger purple husk tomato in my garden, but did not find it particularly valuable. In Maule's trial grounds (Newfield, N. J.) I found a Mexican husk tomato of plum size and purple color, but do not know anything about its value for culinary purposes. Plants of the ordinary small yellow "cherry" tomato may be hung up, however, at the close of the season, and the fruit will continue to mature and drop to the ground, for some weeks, the "Rural New-Yorker's" statement notwithstanding.

A. Greiner

Fruit Growing

Naturalized Trees in Ohio

SINCE the first settlement was made in Ohio many species and varieties of trees have been introduced and planted. Some were brought here on account of old associations or for some sentimental reason. Many have been brought into the state to ornament the home surroundings and to add to the interest and beauty of public and private grounds. Some are used for hedges, windbreaks or shelter belts; some for their fruit, some for timber, and others for miscellaneous purposes.

How many of these introduced species and varieties are now reproducing themselves naturally or have become naturalized in the state? Let us briefly consider. Perhaps the first tree to be imported in any considerable number was the Chinese mulberry (*morus multicaulis*). This tree reached this country by the way of France, in 1829. Its fame spread rapidly, and developed a fever of speculation such as no other tree ever produced in America. It was believed that the secret of the Chinese silk industry had been discovered. Many nurserymen devoted their entire energies to propagating this tree. Some went to tropical countries that they might grow it during the winter. From Maine to the Gulf, and from the Atlantic to the Mississippi, and even farther west, came requests for mulberry trees. From Ohio the demand was eager, and thousands of these trees were planted in various parts of the state. The excitement continued for several years; then came the reaction, and *morus multicaulis* dropped quickly from public favor.

Although many of these trees were not cut down until enfeebled by age or disease, so far as I am aware, not a single specimen exists in Ohio to-day. Among the trees that have been introduced and quite largely planted in Ohio during the past fifty years, mainly for ornamental use, although sometimes for other purposes, may be cited the following:

Lombardy poplar.	Purple beech.
White or silver poplar.	Yellow or black locust.
White willow.	Western catalpa.
Weeping willow.	Osage orange.
Ailanthus, or Chinese tree of heaven.	White mulberry.
Horse chestnut.	Black mazzard cherry.
European mountain ash.	European linden.
Cut-leaved drooping white birch.	European ash.
European elm.	European larch.
Norway spruce.	Austrian pine.
Scotch pine.	

I have omitted many species that have been less generally planted, like the *Salisburia* or *gingko*. *Bald cypress*. *Cladrastis*, etc.

Of the twenty-two species first named, although all of them grow surely and thriftily in Ohio, not more than six have become naturalized, or are growing anywhere in the state by natural means alone. I have never seen any fruit or seed on the Lombardy poplar, weeping willow, cut-leaved birch, or purple beech, although I have observed many specimens of each. Most of the others produce blossoms and fruit in greater or less abundance, but the great majority still fail to reproduce themselves by seed.

Those that are becoming quite largely distributed throughout the state by natural means are the yellow or black locust and the ailanthus, or Chinese tree of heaven. The white willow and white or silver poplar appear to be quite well established, although these species are spreading more from shoots or suckers from the roots than from seed. The Mazzard cherry has obtained a firm foothold along some portions of the shores of Lake Erie. When undisturbed it is reproducing itself with vigor. Sporadic specimens of the osage orange and white mulberry are sometimes seen where one would readily imagine they came from Nature's seeding, but such cases are extremely rare. Some of the introduced trees are quite prolific. The horse chestnut, the European mountain ash, the European elm, the Norway maple and the European larch are often well loaded with seeds, and yet these species are apparently unable to establish themselves upon an independent basis.

This general lack of natural reproductive power on the part of so many of our introduced trees may, perhaps, be regarded as a virtue rather than a vice. It prevents them from becoming weeds. As most of them can be readily propagated by cuttings or by budding or grafting, we can easily control the number of

individuals, making it greater or less, as the occasion may require. On the other hand, a valuable timber tree that will spring up, as it were, spontaneously, and aid in covering deforested areas and waste places, should be counted as a blessing.

WILLIAM R. LAZENBY.

Apples in Boxes

The past fall I had a nice lot of Blenheim pippins and on October 1st local buyers offered one dollar and fifty cents a barrel for them, but I put them up in bushel boxes and sold them through a Cleveland commission house at one dollar a box. In November local buyers offered one dollar and eighty-five cents a barrel for Snow apples, but these went the same way as the Blenheims, and sold for one dollar and twenty-five cents a box. On the whole, the returns for the apple crop of 1906 have been gratifying, but owing to the scarcity of help hundreds of bushels of what were once prime "drops" are still under the trees. It seems too bad to think of this waste—and worse to see it, but there was no alternative.

New York. E. H. BURSON.

Apple-Tree Lumber

Ernest Walton, Rowley, Massachusetts, writes the FARM AND FIRESIDE concerning my short item about the sale of apple-tree lumber to saw-handle factories. He wants to know whether it would be profitable for him to collect this kind of lumber in his state and ship to the mills, and if so, how the plank should be sawed and measured.

There may be other readers of the FARM AND FIRESIDE who have determined to uproot old apple trees and desire to find a market for their lumber.

The best way to find a profitable market would be to consult some dealer in hard lumber. The lumber that is gathered in Michigan, where a mill at Hartford is engaged in the sawing of this kind of material, is shipped to a handle factory in Indianapolis. There are hardwood dealers in all of the larger cities, and farmers and others who have any amount of such material to dispose of very likely could find out all they want to know. It is improbable that apple lumber could be shipped long distances and get much out of it. Apple lumber is good for other purposes than saw handles. Look up your hard-wood dealers and find out what they know concerning the matter.

Illinois. J. L. GRAFF.

Clematis

N. G., Aberdeen, Washington—I think it a good plan to cut clematis back very severely, and I have got best results where I have cut it back to the ground each year. This will apply to the large as well as to the small flowering kinds. There are a large number of kinds of clematis, but so far as I can now recall this will apply to them all. One of the most beautiful forms of clematis, and also one that is easily grown, is of quite recent introduction to the general nursery trade. It is known as clematis paniculata, and produces an abundance of small white flowers in autumn after the other clematis have disappeared. The flowers have the delicate fragrance of the Pond Lily.

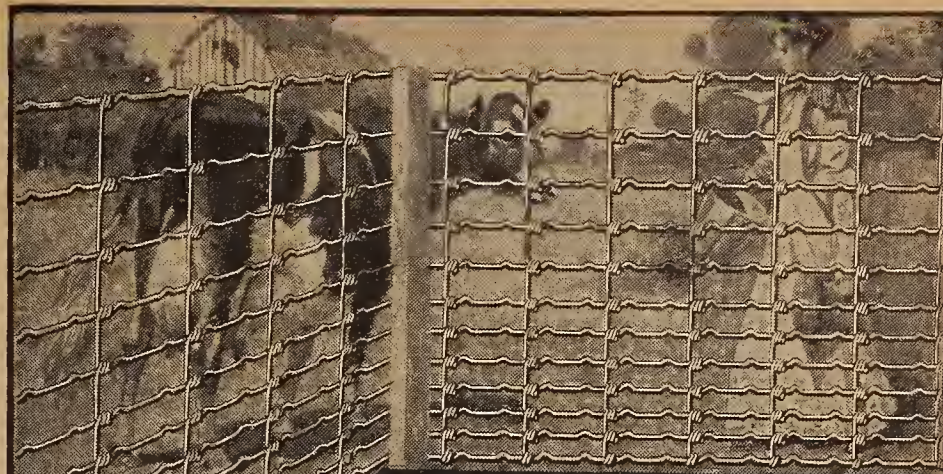
Molasses Vinegar

T. H., Encampment, Wyoming—Vinegar can be made out of almost anything that has sugar in it. I am inclined to think that in your particular case the reason your solution became bitter instead of sour was due to the presence of some foreign ferments. There will be no advantage in using parings of apples or even the juice of apricots, except to give flavor to the vinegar, as it would add nothing to its acidity. I am inclined to think also that had you added more sugar or molasses to the solution you were to make vinegar out of you would have less chance of its becoming bitter.

To make vinegar in this way it is generally best to set the fermenting material where the thermometer will not vary much from seventy degrees, and be sure and start it with some good cider vinegar or mother of vinegar.

The reason the mold formed on top of your vinegar was undoubtedly because there were impurities in it on which the mold could feed, and it is probable also that the vinegar was somewhat below full strength.

Samuel B. Green



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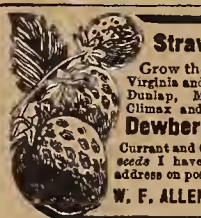
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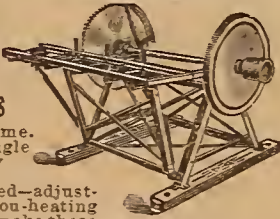
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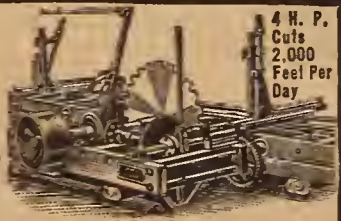
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Live Stock and Dairy

Bristles

LAST summer a city visitor remarked that he was a hog fancier, and owing to his success would rather raise them than any other animal. I asked him for the secret of his success. His reply was: "Salt, salt, salt in every feed." I had just purchased three June pigs, and was ripe for pointers, and resolved to try it. I fed middlings with milk and water three times a day. Starting with a tablespoonful, I increased the salt to a handful in every feed. They have been decidedly thrifty, and now are beauties. Of course, they got good care, but I believe the salt aided greatly in keeping them in perfect condition.

I believe the old-fashioned swill barrel a nuisance from every standpoint. Dumping everything into a barrel, and allowing it to sour and rot, and feeding from and adding to without even cleaning out during the whole summer, is about the worst bit of sanitation known. I never feed anything that stands in a bucket over six hours.

A few days after getting these pigs I noticed them scratching at every opportunity. On examination I noticed a great many ticks—smaller than sheep ticks. As they were actually free, not having been reckoned in the purchase price, I should have been delighted at the discovery, as it is so seldom that we farmers get anything free. But they were unwelcome strangers to me. I reasoned that the pigs could not thrive thus infested, and sought a remedy. I found where one writer advised the use of a sheep-dipping tank for hogs thus infested. In the absence of sheep, he recommended the building of a similar outfit for hogs. That would be all right for the large grower, but too expensive for me. It occurred to me that perhaps kerosene emulsion might do the business. Procuring a gallon molasses can, I put into it three quarts of strong, hot soapsuds and half a pint of kerosene oil. After cooking and shaking vigorously for a few moments, the emulsion and I were ready for business. When the emulsion was sufficiently cooled, and when the pigs were eating at the trough, I poured over a pint of the emulsion along the back and over the head of each pig. The effect was even better than I had expected. The ticks disappeared, and with them the scurf, giving the pigs the appearance of having been washed. I repeated this three times during the summer and fall. Have you not noticed, when butchering, small red spots on the skin? That is the effect of these ticks, and should at once suggest that they are injurious to the living animal.

I was astonished at the amount of coal these three would eat. They will leave corn any time for it. Being in a tight pen off the ground, they need something to rasp out and sharpen their digestive apparatus, which would hardly be needed by those running at large, with access to the ground.

The salt, emulsion and coal were of small cost, but I think very effective, and had much to do with the success of my pig venture.

Ohio.

S. C. TEMPLIN.

Fattening Pigs

Experience has shown that the cost per pound of growing and fattening pigs increases with age. That is to say, a pound increase at four months old, and so on, for the pig needs a certain amount of maintenance food—food to keep up its condition. For this the farmer gets no return; while the quantity increases with the age of the pig. Hence it is less costly to raise two pigs to 250 pounds each than it is to grow one, say to 450 pounds. It is, of course, on the excess of food a pig can be induced to eat that the profit is gained. There is always more risk of losses among young pigs than with those of over 100 pounds in weight, and the food for the young animals has to be of better quality than for those which are matured or nearly so. Thus it is usual to give oats, peas, middlings, etc., to young pigs, while the older ones thrive on much cheaper foods. It is difficult to say when it ceases to be profitable to keep a pig. But when it attains maturity and needs most of its food supplied specially, it should be killed, unless required for breeding purposes.

On the other hand, it may safely be kept so long as it increases well in weight, and can secure half its food by grazing. For the last few weeks of the fattening period there is no food much better than cornmeal, which gives a

good flavor. About twelve weeks is generally quite sufficient in which to fatten pigs, and it is wasteful to begin the special fattening process earlier, though the stock must be kept in good condition, for when an animal has once been in good flesh and has lost weight, it costs much more per pound of increase to bring it up into condition again than it originally did. **W. R. GILBERT.**

To Prevent a Cow from Kicking

For a cow that frequently lifts her foot or kicks when being milked the simple device shown in the cut will prove beneficial. Through each end of



ANTI-KICKING APPLIANCE

a strong stick, a, put a strap, and buckle this, b, to her leg above the hock joint and near the ankle. She cannot lift her foot except to kick backward, and cannot disturb the milk pail.—Farm and Home.

Hogs in Rye

I want to thank the man who wrote about letting his hogs run in a field of rye and young clover. I tried his plan the past summer, and found it all right.

Though I did not have any clover, there was a plenty of bluegrass and other stuff on the creek flats which they ate. After the rye and cheat got ripe they ate the heads off, and did well.

H. F. BRIGGS.

Philosophy of Sundry Dairy Points

The ordinary dairyman is seldom a breeder in the true sense of the word. The present amount of milk or butter constitutes the sole basis from which he may calculate his profit and loss. When such a man buys a cow, he wishes to know her capacity as a milk-producer and a butter-maker; he buys her upon the consideration of what the cow can perform in these lines. The price which he receives for milk usually makes it more profitable to dispose of all young calves, and to keep his herd full by purchasing grown cows. Consequently, such a dairyman would be expected to take little interest in specifically breeding points. But the record of the cow to be purchased is not always available, and sometimes the guaranty of her former owner may not safely be given credence. Under such circumstances most practical dairymen have evolved an ideal system of requirements, and though confessing not to be breeders, they measure up their purchases to some ideal standard in a more or less scientific style.

It is often remarkable to perceive the extent to which some so-called "Old Timer" has systematized his observation and experience in such matters. Possibly in open defiance to orthodox scientific breeders, and ignorant of their work, he has made the same discoveries of truth and has walked side by side with them in research, each, very probably, with no proper estimation for the labors of the other.

Modern agricultural science is nothing but a systematic classification of the truths and principles discovered in the practical laboratory of the farm and in the scientific laboratory of the professional agricultural scientist. What the "Old Timer" has done for modern agricultural science is too often ignored in our overeagerness to praise the achievements of the modern scientist. It may be that, after all, the modern man has sometimes merely stated the broad principle that the so-called "hayseed" has been slowly coaxing from his soil and from his herd by long years of patient "clod-hopping."

The writer has known a few of the typical old-style judges of dairy cows: in many cases some modern breeder can give no more orthodox reason for some apparently sporadic idea of his than that "Old Man So-and-So" said that it always worked, and that his ex-

Live Stock and Dairy

perience has actually made good. These crude empirical findings are not so commonly met with as formerly, because modern science has tested their truth and has published the fundamental principal in the guise of technical language.

The wedge shape and nervous temperament of the dairy cow are not very new ideas; the "fine-boned" requirement has not sprung full grown from any agricultural college or experiment station. The relation that exists between nervous organization, digestive capacity, and general anatomical structure on the one hand, and milk-production on the other, is an exceedingly interesting study, and more or less is constantly being written on this subject.

But long before there existed such a thing as a scale of points, dairymen threw calves on their backs and carefully sought for the "milk-wells," navel, and shape of the incipient udder. Why? Because cows of a certain development in these details proved profitable. The examiners did not know the principle, always, but they got results; and results are what measure profit and loss. The bull calf was examined for rudimentary teats, and if he had none, he was often castrated because of that defect alone.

Now, we base our opinion of "milk-

rear, it may easily be seen that in a design of rather peculiar outline, the hair on each quarter grows in an opposite direction—usually inclined upward. The well-developed lower part of an escutcheon was believed to indicate a large flow of milk; the upward elongation on each side extending toward the base of the tail was considered as some evidence of persistence in the length of the lactation period. With some, the importance of the escutcheon was magnified to the extent of a fad. How the size and shape of an escutcheon could have any bearing upon milk-production was formerly not known; the coincidence of extraordinary development in these points was a strictly empirical discovery, and waited for exact science to explain the real relation.

The interpretation seems to lie in the fact that the udder and the surface skin in the region of the escutcheon are both supplied by the same arterial system. Then, if the escutcheon is large, it would indicate an abundant circulation of blood in the skin under the design; but the udder being supplied by the same arteries would be amply supplied by the same channels of circulation. The explanation of the peculiar reversing of the hair of the escutcheon is still subject to some speculation; a few have affirmed it to be due to the presence of



CHAMPION AMERICAN MERINO RAM, YEARLING, FIRST AT WEST VIRGINIA AND ILLINOIS STATE FAIRS

wells" upon the fact that they are known to be the openings through which the veins return the blood from the udder into the abdominal cavity on its return to the heart. In case these "milk-wells" are large in a heifer calf, they seem to imply the future development of large veins leading from the udder, and consequently ample circulation of blood in the udder, which results in abundant secretion of milk under ordinary favorable circumstances. To-day, we say a prominent navel pre-supposes a well-developed fetal cord, with ample nourishment before birth. This being true, a large navel may be regarded as a favorable index to inherited constitutional vigor; contingent environment being favorable, the cow of greater bodily vigor will excel in milk-production. A well-formed incipient udder in a heifer calf is some evidence of symmetry when developed. Scantiness in fore or in rear udder indicates an inferior glandular development, and consequently less capacity for milk secretion. Rudimentary teats in a bull are now regarded as of some importance; because, being more prominent in dairy breeds than in beef breeds, these rudiments are considered as evidence of dairy tendencies, and of udder development in the prospective female progeny. The better milking families within any dairy breed usually carry a better development of these rudiments in bulls of the line, than are carried by bulls of families less remarkable for milk-production.

Old judges grasped a cow's tail at the tip of the bone and measured it toward the tip of the hock joint. If the tail failed to reach the hock by a decided difference the cow was regarded the less in consequence of the fact. Modern breeders specify that the tail of the dairy cow should be "long and slim."

Possibly no point has been studied in the past with greater care than was the escutcheon. Viewing a cow from the

large arteries near the surface of the skin. The escutcheon is still considered of real significance, but modern judges, having developed such a comprehensive system of other authoritative points, never allow it to usurp an importance equal to what it formerly maintained.

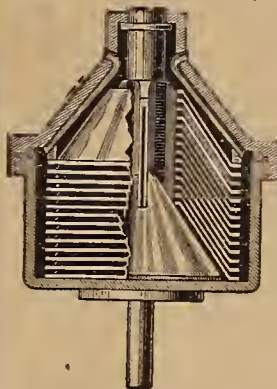
It is interesting to observe among breeders the extent to which some one of these subsidiary features may be allowed to monopolize the owner's attention. One breeder will measure a cow's tail to the hock with great satisfaction, but pay little attention to the fact that the rear teats nearly touch each other. Another enthusiast may never think of the length of the cow's tail, but describe with great interest the outline of her ample and symmetrical escutcheon. A third breeder may condemn both tail and escutcheon, and produce a better herd than either of the other breeders, averring at the same time that neither of their great points has ever influenced him in the least.

The foregoing anatomical points are characteristic of dairy cows, and are worth a greater or less consideration by the breeder, but no detail should be allowed to usurp undue importance. Older judges, through ignorance of a more comprehensive system of points, may have learned to rely upon a few rules to the exclusion of many better ones. These sage husbandmen are entitled to regard for what they have accomplished, but the man who wishes to attain success in modern live-stock breeding must not be a fog in any sense of the word. The breeding of live stock should be past the stage of sorcery, though the evolution of some of its principles seems to have been shrouded in practise near akin to the antiquated art.

Geo. Williams

THE "DISC" SYSTEM OF CREAM SEPARATION

Judging outward appearances alone, it might be reasonably assumed that one cream separator is as good as another. However, as the outside of the machine does not do the separating, we must look deeper for the real merits of the separator. Upon the construction of the gearing depends durability and operating ease which, of course, should be carefully examined, but the really important feature is the construction of the bowl. This is what does the work, be it good or bad. Exhaustive tests have proven that the best results can only be obtained when the separator bowl contains a series of **conical shaped, imperforated discs**, dividing the milk into strata or thin layers.



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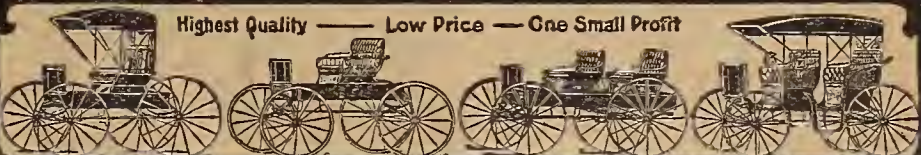
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Conditions in Ireland

By Frederic J. Haskin

GREAT things are predicted for the new land law which has been enacted to relieve the distressed agrarian conditions in Ireland. It seems that after long centuries of unparalleled suffering, the cry of "the land for the people" is to be answered. The burning need of some sort of relief is shown by a glance at the statistics.

Ireland has an area of thirty-two thousand square miles, which is about equal to the size of Indiana, or three fifths of Iowa. Of the twenty million acres of land in Ireland, about fifteen million acres are cultivable, while the remainder is waste land. Centuries ago all this was under the control of the Irish people, but since the English conquest they have gradually been despoiled of it, usually by wholesale confiscation that was nothing short of downright robbery.

The substitution of feudalism brought about a most terrible state of affairs. Absentee landlords forced their poor tenants to make all improvements and assessed impoverishing rents. Every year the fifteen million acres of productive land in Ireland, tilled by five or six million people, had to pay a tribute of fifty million dollars, in the form of rent money, to their English conquerors, and the most of this sum was sent out of the country. This drain upon the Irish people has been so great that it is no wonder they have become the poorest race in the world. It is a marvel that they have not perished altogether.

At the time of the last census one third of the entire peasantry of Ireland occupied land which was absolutely incapable of producing enough to rear a family in comfort, or even in decency. There were two hundred and eighty thousand families who had holdings less than fifteen acres in extent, and four hundred and fifteen thousand families whose entire property valuation was less than fifty dollars. Most of these poverty-stricken unfortunates were paying rent equal to one hundred per cent interest on their meager belongings.

Many of the landlords are gamblers and drunkards, who reside anywhere save on their estates. Their perpetual tributes were collected by rascallion middlemen who were intolerable extortioners and tyrants, hesitating at nothing to gain more money for their unscrupulous masters. They assumed an authority superior to the law, many of them even forcing the tenants to take off their hats when they approached. A story is told which illustrates the way of doing business under the landlord system: A nobleman who had not visited his estates in Ireland for many years sent word to his middleman that he was going to make a visit to the country, and ordered his house put in readiness for his reception. The middleman answered that the building had been destroyed years before in order to realize money from the sale of the material in it, as well as to derive revenue from utilizing the soil under it.

The confiscation of land in Ireland has continued until most of the great estates belonging to historic families have been broken up and their owners driven from the country penniless. Invariably the small owners who were allowed to remain have been reduced to straightened circumstances. In the extreme western part of Ireland there are many farmers who are unable to support their families from their holdings, and are obliged to go to England every year to work as harvest hands. In some portions of the country the landlords have parceled out tracts to small holders for political purposes, the tenants being forced to vote according to their masters' wishes.

In other localities where the political situation did not require such manipulation, wholesale clearances of the remaining population were made. Large districts which formerly supported thousands of inhabitants are now merely used for grazing purposes, yet almost



"TOP O' THE MARNIN' TO YEZ"

adjoining are sterile mountain regions which fairly swarm with people in a state of want. This overcrowding on the bare mountain sides, and the general oppression of the population, is the cause of the tide of emigration which has almost depopulated unfortunate Ireland.

The Irish laborer has been called "a farmer without a farm." In some districts the hired men are called cotters. They rent a house yearly or half-yearly from a landlord, with the understanding that they work for the latter during the harvest period at the current rate of wages. The cotter on his part bargains that the landlord shall provide him with a certain quantity of potatoes, or give

him ground which he can cultivate himself. Ordinarily he has enough room to raise some pigs and cows. The cotter's house is generally made of stone, with a chimney at one end. The roof is thatched, and soon gets in poor condition because the tenant begrudges the straw necessary to repair it. Constant friction ensues because the landlord cares nothing about the welfare of his tenant, and the latter is loath to improve some one else's property.

The farm hand who goes to work for a landlord without any housing arrangements such as those made by the cotter, fares even worse. He is generally hired by the half-year, and if he leaves his employer before his time has ex-

pired, is likely to be prosecuted. Married farm hands or servants are forced to live in wretched hovels and are given a meager allowance of poor food. Frequently a man and wife and seven or eight children will have only a sleeping space of a few square yards. Their quarters are without light or fire. People are certain to suffer who have to depend upon dried cow dung for fuel in the dead of winter.

It is not surprising that the rural population of Ireland look with favor upon the laws and customs of America. They do not like anything that is English. They are likely to resent any attempt to relieve their suffering, on account of the way it is done. As an instance of this there might be cited the unpopularity of the directors of the board for assisting the poor. The destitute in Ireland look upon the relief work offered by the government as something of a disgrace, but will accept alms or private charity without shame. They regard alms-giving as needful and natural, but give the government no credit for appropriations to provide work for them. If the assistance were given as an outright donation it would doubtless be accepted, but when they have to work for it they seem to suspect that their masters are not acting in good faith, but are trying to make a profit out of them.

The rural police of Ireland are in most respects a military force. They are equipped with rifles, bayonets, swords and pistols. The members of this force are quartered in barracks located in each village. Every night a patrol of two guardsmen leave their quarters and traverse a highway until they meet the guard from a station located in that direction. After the meeting each patrol then returns to its own barracks. The people are heavily taxed to maintain this system, and it is generally regarded as an unwarranted extravagance, because there is not enough crime or disturbance to require such a powerful armed force throughout the country.

Although dark shadows of poverty and distress have hung over hapless Ireland for hundreds of years, no amount of sorrow seems capable of destroying the joviality and light-heartedness that are the natural traits of the sons of Erin. No occasion can be so gloomy that Irish wit will not extract a spark of humor from the situation. One day when two Irishmen walking along a country road inquired how far it was to a certain place, they were told that the distance was twelve miles. The pedestrians were already foot-sore and weary from their long journey, and sat down by the roadside in disconsolate spirits. Finally one of them, to cheer his comrade, said, "Sure, Mike, that's not so bad; twelve miles is only six apiece, so let's be going."

A raw recruit in the army was given an unbroken pony to ride. After a lively siege of bucking, one of the horse's legs became entangled in the stirrup, causing Pat to remark, "Faith, if you are thinking of getting up here, 'tis time for me to be getting down."

A story is told of a prominent clergyman in Ireland who was ashamed of his brogue. Learning that he was a little touchy on the subject, members of his congregation were inclined to tease him about it. One day, while speaking to one of the leading parishioners, the parson complained of the injustice done him, and asked if honestly there was a single trace of brogue to be noticed in his speech. "Well," the friend replied, "if you are determined to make a denial that you have a brogue, I should advise you to do so in writing."

A peculiar interpretation of responsibility before the law was brought out in the trial of a man who had thrown a stone through a plate-glass window. The object of the attorney for the defendant was not to deny the responsibility of his client, but to prove that the man with whom he was fighting at

[CONCLUDED ON
PAGE 34]



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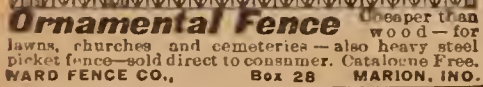
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The Grange

A Talk with My Readers

THERE are things I wish to say to you, and the beginning of a new year is a fitting time. A strong kinship exists between readers and a writer, a feeling of identity of interests, a desire to find that which will be of the greatest good to each. Ours is a wondrous family, probably never surpassed in history, over four hundred thousand subscribers representing many occupations, every degree of life. If the best interests of one of this family are served, the best interests of all are guarded, for the good of each is the good of all. The aim has been to discuss policies in this light. Only those who keep in mind this high ideal have gained access to these columns. There has been scrupulous adherence to the policy of introducing no one to the family, no matter what his or her position might be in the order or in society, who was not representative of the best American life produces.

Why this extreme caution? There probably never was a time in the history of the world when more questions of large importance were pressing for solution than to-day. The most adroit campaigning, the most cunningly devised arguments are used; passions, prejudices and suspicions are appealed to to win support. Only those of clear heads and pure hearts, who have won the esteem of their own communities for sound judgment and integrity, are fitted to speak upon matters that affect the destiny of millions. I have frequently said that the problem which transcends all others in importance is the problem of distribution, that the skill in producing far exceeded the art of distributing to each a fair share of the results of labor and capital. Unrest permeates every fiber of society. Somewhere the truth is to be found.

"There is the unanimity of belief of the ignorant, the disagreement of the inquiring, and the unanimity of the wise" as to the best method of securing this equitable distribution. For the right discussion of these problems there is need of divesting oneself of prejudice, suspicion, sacred regard to dead relics, and approaching the questions with open minds and an earnest desire to find wherein truth lies. Experts upon different questions have been secured as writers, but before accepting their propositions as final, or dismissing them as untenable, let each reader examine carefully into the premises of each proposition and decide on the merits, not through preconceived notions or reverence for a name.

Death of J. B. Ager

Patrons were shocked at the news of the death of one of the oldest and best loved members of the Order, Joseph B. Ager, for many years Master of Maryland State Grange. He and his wife gathered a little group about them at Denver, on the fifty-third anniversary of their marriage.

Brother Ager has been in declining health for a number of years, but his people loved him so well that they continued him in his high place, and helped him bear the burdens of office. The sympathy of the entire membership of the Grange is extended to Sister Ager in her great bereavement.

Parcels Post and Good Roads

Good roads and parcels post are inseparable. Before the latter can be of great benefit, roads must be so that teams can pass over them throughout the year at a minimum of expense. Yesterday our mail carrier with a light load had to walk most of the distance. His pay does not enable him to drive two horses. Good roads are an essential to parcels post. Work for the good-roads bill proposed by the Grange.

National Master Bachelder says: "Considering the great importance of inaugurating a policy of national improvement of our highways at the earliest possible date, I recommend that the Grange, in addition to reaffirming its position in support of this measure, conduct a special campaign to secure the prompt passage of a satisfactory bill. And, furthermore, as much valuable time has been lost through the failure of Congress to act, I also recommend that a new Grange bill be prepared and submitted to Congress, increasing the total appropriation called for to fifty million dollars, to be divided into five annual appropriations of ten million dollars each, to be expended in co-operation with states for the improvement of main highways."

The sentiment in favor of good roads and parcels post is in the air. Crystallize it into action in your own section. Don't wait for others to act. If the energy used in talking were concentrated into action, another year would not roll around until thousands of miles of hard roads would be built. We have aided others in improvement of waterways. Let us show the faith by our works, and secure a national appropriation for good roads; and then see that it is expended in roads, not in fat salaries.

Questions in Taxation

In considering the exemption or non-exemption of mortgages, let each place himself in the position of borrower and of lender, and determine what effect exemption would have on him in each capacity; also, what effect it would have on the tax duplicate of his county; what per cent of mortgages are returned for taxation and what are the methods of escapement? Would it be necessary to lower the legal rates of interest if mortgages were legally exempt? Should interest on mortgages be taxed?

Distinguish between a corporation bond, a municipal bond and a mortgage as taxable subjects. Would it be just to deduct the amount of mortgage from the debtor's property and tax the mortgagee? If the mortgage is taxed, should it be listed in the unit where the debt is secured, or should it follow the mortgagee?

Some states tax a mortgage as realty and deduct the amount from the value of the land. Does this amount to practical exemption?

The Observatory

The article on juvenile Granges which appeared in the December 15th issue should be credited to Mrs. C. E. Harris, mother of juveniles in Ohio.

Strong sentiment was expressed at the last Ohio State Grange against people holding office in the state Grange who are seldom seen at their subordinate lodges. Service and ability to serve are certainly worthy of reward.

Those most anxious to get the spoils are the ones always crying for short terms of officials. Ability to serve, to bring good to the Order, should be the criterion, not division, of spoils. People who realize the power and influence of the Grange, and desire for it the greatest good, are not found crying for short terms of service.

In the matter of taxation that is being agitated in many states let each divest himself of suspicion so far as possible and seek a just method for all. No system has ever been devised but that laid a far heavier burden on the small property owner, in proportion to his ability to pay and to the protection received, than on the large.

At present there seems to be a sincere desire among all industries to co-operate in devising a system that will cause less friction and less injustice. It would be far better to meet and discuss differences amicably and in a broad-minded way than to carry on long and costly battles in the various state legislatures. Prevention of ills is safer than reform.

People believe what they think it is to their interest to believe. The accuracy of their beliefs is gaged by the amount of intelligence they possess, and the quality of moral fiber. The larger their fund of information and finer the moral sentiment, the more accurate the judgments. A thing becomes immoral when it becomes unprofitable.

A gulf separates a great soul from lesser ones, and their crafts can never touch the shore. Unable to make it, they strike out wildly. They may scar it, but they cannot permanently mar it. They cannot lessen its grandeur nor deflect a ray of light that falls from the lighthouse of Truth.

Members of the grange do not take kindly to the monopoly of any time by office-seekers. They want people in power who can render them service and look after their interests in a business and legislative way, men whom they know and trust. Any attempt to divert attention from the business of the organization to self-seekers will be frowned upon at coming state granges. The matter of a second term, or of courtesy to an indi-

vidual, will not take precedence of the interests of the members. The Grange is the great protective agency of the farmers, and it must be officered by those who are capable of maintaining those interests. Let the office seek the man. Have we forgotten that doctrine?

I had the pleasure of organizing Marcy Grange, in Fairfield County, Ohio, on the fourth of December, the 39th anniversary of the Grange. This was a direct result of the Grange exhibit at the state fair. The organization was worked up by J. L. Ropp, who was elected master, and Chas. Beery, who was elected secretary. It is composed of wealthy and intelligent farmers. The granges in Fairfield County refuse to organize on the low-fee basis, and select the maximum fee, believing the best interests of the Grange are thus subserved. The excellence of the membership and the quality of work done is a guarantee of their wisdom.

Mary E. Lee

Reflections on Two Big Fines

The Grange has long been an advocate of the "square deal" in business affairs. This is not equivalent to saying that all members of the Grange are "square" in their own dealings. However, the fact that the Grange frequently and consistently advocates fairness and honesty, emphasizing at every meeting of its highest legislative body the importance of clean business methods, can hardly fail to raise the personal and business standards of its members. It seems to be clear that the business of the country is being more honestly managed than it used to be. Dishonesty and lawlessness are becoming more and more disreputable. An illustration is at hand:

On December 11th Judge Holt of the United States Circuit Court fined the American Sugar Refining Company eighty thousand dollars and the Brooklyn Cooperage Company seventy thousand dollars for accepting rebates on sugar shipments. Both of the companies, through their attorneys, had pleaded guilty to the indictments charging them with violating the anti-rebate law; and so the fines were imposed with the consent of the criminals. Other indictments were hanging over the guilty corporations at the time; but, after the penalties had been inflicted, the district attorney expressed the opinion that the fines were sufficient in amount to keep other corporations from offending in the future, and stated that the government would consent to the dismissal of other indictments against the offending corporations. Accordingly Judge Holt granted a motion to dismiss, and the guilty trusts escaped much more easily than they might had strict justice been awarded them for their offenses.

I have wondered more than once if there can be any real justification for such acts as that by which a district attorney agreed that the American Sugar Refining Company and the Brooklyn Cooperage Company might escape the penalty for their crimes. It appears that their guilt was undoubted; that the law prescribes certain penalties for each violation; and that, the guilty parties having confessed on one count each, the district attorney practically exercised the pardoning power by consenting to a motion to dismiss the other indictments. In other words, he agreed with the attorneys of the criminals that the law should not be enforced. Is such conduct justifiable?

However one may look upon a case like the one here mentioned, it certainly is gratifying to know that a certain measure of justice has been awarded the corporations. Of course, the penalty does not fall on the real culprits. The fines are paid by the stockholders; the real criminals are the responsible officers. True, the officers are also stockholders, and so bear a part of the punishment, unless they are able to shift it all to the shoulders of innocent holders of corporation shares. It seems to me that the laws should be so written and so administered that rich offenders would be made to suffer in their own persons for their sins against the laws of the land and against common honesty. Even in cases like those I have mentioned, where the fines seem to be large, it may be that the amounts received as rebates were much larger; and so it may be that only a part of the profits of lawlessness were used to pay the penalty of lawlessness. At any rate, it is made apparent by the decision of Judge Holt that the great criminals can be brought to account. Besides, the people are given good reasons for believing that the riot of rebating is approaching its end—a riot that has favored the rich and unscrupulous, to the hurt of all others.

Colorado.

D. W. WORKING.

The Farmer in the Carolinas

By Waldon Fawcett



THE awakening of the "New South," which has been such a noteworthy feature of our country's progress during the past few years, has extended to agricultural lines. Indeed it is a question whether the advance made by the tillers of the soil is not the very backbone of the fresh energy manifest in the region south of Mason and Dixon's line. All sections of the South show extended activity in farming, but it is perhaps most manifest in the Carolinas, and these two states may be selected as thoroughly representative of the present-day conditions and future possibilities of a region that needs more farmers to develop its resources just as urgently as does any part of the West.

To consider North Carolina first, it may be pointed out that the geographical position of the state, stretching from the high mountains of the west down the sunny slope to the sea—where her coast extends further out toward the Gulf Stream than any point north of Florida—naturally gives her a great range of soils and climates. In the northwestern part of the state, for instance, we find high mountain valleys and plateaus where the short seasons require a quick-maturing corn like that of Canada to make the crop, while in the southeastern portion of the state the ribbon cane of Louisiana flourishes, and great rice plantations border the rivers.

The Piedmont Plateau, comprising more than one third of the landed portion of the state, is the great general farming region. Here, agriculture in all its forms, stock raising and dairying are carried on. Corn, wheat, cotton, tobacco, grasses, clover, fruits and vegetables all find congenial environment in soil and climate. Agricultural pursuits constitute the remunerative occupation of a majority of the citizens, but manufacturing has gained a foothold, and the visitor is treated to the unusual spectacle of cotton fields surrounding the cotton factories, and sheep browsing upon the hills about the woolen factories.

The eastern section of North Carolina, or the coastal plain, as it is sometimes called—a section of country two hundred miles in width—has a soil composed of clay, silt and sand that is perhaps the most productive to be found anywhere on the Atlantic seaboard. The whole territory is given over largely to truck farming, and by producing early vegetables and fruits at a season when they are not procurable from any other source the farmers of this section are able to virtually dictate their own terms. The season comes after the final crop in Florida, but weeks in advance of the first yield in the trucking sections of Virginia and Maryland, and thus the North Carolina products have things all their own way in the great cities of the North just at a time when the city dwellers are keenest in their desire for fresh vegetables.

A list of the money-making truck crops successfully grown in the eastern part of North Carolina would include every one of the common vegetables. However, the most important products in this class include Irish potatoes, cabbage, beans, peas, asparagus, onions, lettuce, beets, spinach, radishes, eggplants, tomatoes, peppers, cantaloups, cucumbers and squashes. It was once said of one of the eastern counties of North Carolina that it could produce enough corn to feed the entire South, and it might be added with equal truth that the coast section of the state could yield enough vegetables to satisfy the appetites of the whole American people in the early spring.

The most recently developed, the most intensive and the most remunerative system of truck growing in this paradise of the cultivator of vegetables and the fruit grower is represented by the irrigated, steam-heated, canvas-covered acres used in vegetable growing in eastern North Carolina. This important new branch of the farming industry is being successfully tried over a wide range of territory, but its development has been especially extensive in the region about Newberne, Fayetteville and Wilmington. Where intensive power trucking has been carefully carried on, the profits are reaching as high as \$1,000 per acre for the season's work.

The frames for this class of farming are made either single, about eleven feet in width, or double, having a width of eighteen feet and any desired length. The material used is rough pine lumber, and the covering is usually a heavy quality of unbleached cotton. A system of pipes is run overhead, and through these the water is driven by a steam pump, escaping from the nozzles in the form of a misty, rain-like spray, while a second system of pipes, placed in the bed and connected with the boiler, carries steam heat whenever it is desired to raise the temperature.

It can readily be appreciated that with such an equipment the grower is virtually independent of vicissitudes of climate. The principal crops thus far produced under shelter as above described are lettuce, beets and radishes. Two crops of lettuce

may be grown—the second, say about March 15—and these followed by early cucumbers, tomatoes, eggplant, peppers and other crops. When all these are out of the way the wooden frames are covered with a growth of cow peas which enrich the land and provide an excellent quality of hay.

The North Carolina farmers seem to have rather the best of the bargain at all seasons of the year, for after disposing of their early truck crops at high prices in the Northern cities they find an equally profitable output for their late truck crops in the more southerly states where the

home-grown product is a thing of the past. Finally, the mountain plateaus of western North Carolina have come to the fore as an ideal locality for the production of late winter fruits in great variety and of the finest quality. Among the winter varieties of apples bearing most satisfactorily are the Winesap, Stayman, Rome Beauty, York Imperial, Ben Davis and Limbertwig, and there are many orchards in the "apple pie" belt that put from \$3,000 to \$4,000 a year each into the pockets of their owners.

North Carolina has its own Department of Agriculture, and this institution has been of the greatest assistance to the farming interests of the state, and might advantageously be duplicated in other states of the Union. This fostering agency, the purpose of which is to further and encourage agricultural development, is controlled by a board of practical farmers. The department conducts test farms in various parts of the state, and investigates diseases of plants and fruit trees and suggests remedies. It also conducts a quarantine for the suppression of splenic or Texas fever in cattle, and investigates all infectious diseases of cattle. The investigation of the ravages of insects and the inspection of fertilizers are yet other functions of this worthy institution. Finally, it holds farmers' institutes in all the counties of the state.

South Carolina is perhaps not quite so far advanced in development as her Northern sister, but progress is being made. Some idea of the opportunities the state affords for farmers may be formed from the fact that of the 19,000,000 acres of land in the commonwealth only about 6,000,000 acres are under cultivation at the present time; this state of affairs being due, of course, to the slow recovery of this part of the country from the devastating effects of the Civil War. Valuable tracts of agricultural land can be had at prices ranging from \$3 to \$12 per acre, which is appreciably lower than in North Carolina, where the range of prices for farming country is from \$5 to \$50 per acre, with even higher figures demanded for choice trucking tracts.

The character of the soil and the climate in South Carolina are such that by proper rotation it is possible to have a paying crop of some kind growing every month in the year. As in North Carolina truck farming is one of the main sources of wealth, and yet this is an activity which virtually had its beginning less than ten years ago. Strawberries will yield from fifty to two hundred bushels per acre, and will net over all expenses, including an allowance for the time of the grower, about \$150 per acre. Cantaloups are another profitable product, and one grower, operating a medium-sized farm last year, netted the handsome sum of \$15,000.

The Palmetto State has long enjoyed an enviable reputation for orchard products, particularly peaches. The South Carolina peach is noted for its size, color, flavor and rare shipping qualities. The orchardists in the Ridge section of the state have missed only three crops in the past thirty years. Many Carolina farmers put large areas in Irish potatoes, and the visitor is likely to come in contact with many tillers of the soil who will regale him with tales of profits of \$60 per acre or more from sweet potatoes, and \$100 and over per acre as the net income from land devoted to asparagus.

Most of the Northern farmers who have moved to the Carolinas during recent years—and there have been great numbers of them—have shown a strong disinclination to engage in cotton culture. They have gone in almost exclusively for fruit culture, trucking or live stock husbandry, impelled doubtless by the belief that it is cotton that has depleted the fertility of the older cultivated lands of the South. Experts declare, however, that there is no crop that draws so lightly on the soil as does cotton, and it predicted that when the farmers from the North come to realize how well cotton fits in on an improving rotation with corn, winter oats or wheat more attention will be paid to it.

The farmers in the Carolinas are face to face with a labor problem, as serious probably as confronts their brethren in any other state. The negroes are for the most part notoriously lazy and unreliable, and what is more they are manifesting a tendency to flock to the cities, so that the available colored help, good or bad, is inadequate. There is a great demand for good white men for service as agricultural laborers, and the standard wage is \$15 per month with board and lodging, which amounts to much more (in comparison with the wages paid in the North), since the mild climate saves the farm laborer any expense for heavy clothing. In some sections of the Carolinas considerable numbers of Italians have been brought in for positions as farm laborers, but the supply of help is not even yet anywhere near equal to the demand.

The traveler in the Carolinas does not find every landscape dotted with neat, well-

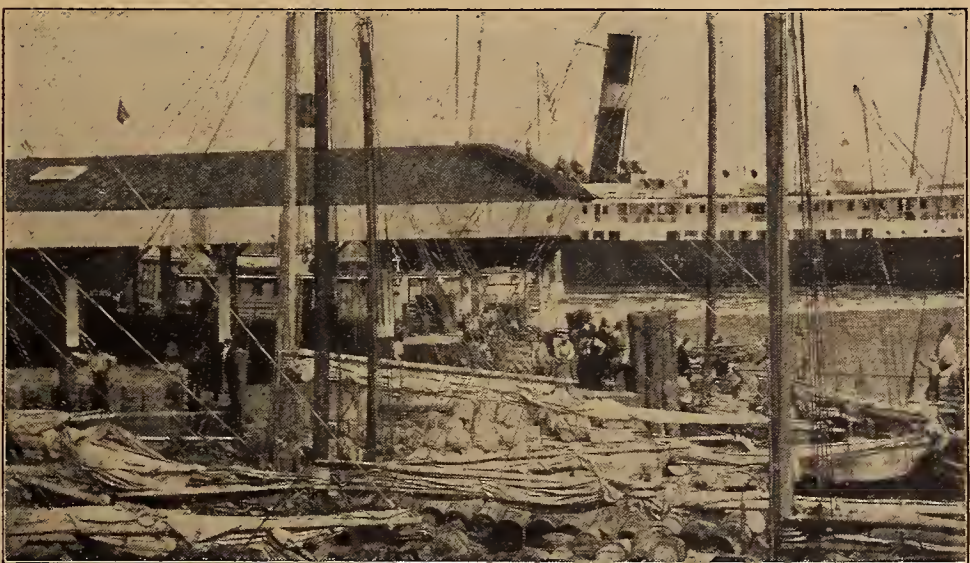
[CONCLUDED ON PAGE 32]



READY FOR STRAWBERRY PICKING



TAKING STOCK TO TOWN



SHIPPING CAROLINA TRUCK TO NORTHERN MARKETS



FARMING UNDER COVER

Rafe, The Rubber Gatherer

By Frank H. Sweet

CHAPTER I.

"HEY, dere, you slow mover, you Rafe boy! Take dat calabash an' empty your sap cups. An' be queeck, or you feel once more de steeck. Better you fly. An', hear me, take plenty cups for de new trees I mark."

The boy addressed rose quickly from his calabash-cleaning, and, with one apprehensive glance toward the evil-eyed, half-breed overseer, gathered up as many of the diminutive earthenware sap cups as he could carry in the calabash, and hurried into the forest.

Already it was growing dark under the thick tropical foliage, where the direct rays of the sun never penetrated, and with the swiftly gathering gloom came the awakening voices of the night-roaming animals and birds. As he ran on Rafe's fear of the overseer became mingled with the terror of these unseen voices, and but for the remembrance of the heavy stick whose red marks lay thick upon his shoulders he would have turned back. Only yesterday a sap gatherer whose allotment of trees was on the far side of the rubber grove had been seized by a jaguar and borne away, and when they returned at night all the gatherers were in the habit of relating in hushed voices their narrow escapes of the day. Of course in most cases they were exaggerations, or even fabrications; but there was always enough possibility of truth in them for the imagination, especially of a stranger, to accept the tales as commonplace facts. Any walk through the dark undergrowth was liable to reveal a deadly serpent gliding away into the still darker recesses, or some grotesque bird of brilliant plumage whose scissor-like bill, the sap gatherers said, was strong enough to cut off a finger at a clip; and always there were strange cries and croakings and groans and hissing after once the darkness had begun to thicken.

The sap gatherers' eyes would glitter as they watched Rafe's face blanch at their stories of the forest terrors, and they would enlarge upon such real happenings as their companion's seizure by the jaguar to make the fabrications appear real also.

But Rafe never doubted. This country of the upper Amazon, where the finest grade of rubber is produced, was all new to him, even to the forest and almost the language. He spoke good Spanish, and carried himself as one who had been used to better things, and perhaps this antagonized them; or perhaps it was because on his first appearance he had rebelled fiercely at the degradation of being forced to serve even the lowest of the laborers, and had called them all a pack of dirt eaters and bullies. At any rate, none of the two hundred or more half-Indian, half-negro laborers and their bosses appeared better pleased than when they could make this clear-eyed, straight-limbed Spanish boy cringe with bodily suffering or a sense of his utter degradation.

It was not far to that portion of the grove where he had to gather sap; but first he must go to the new trees beyond, which the overseer had marked as ready to be tapped. This would make a hundred and twelve trees in all for him to attend, though some of the sap gatherers looked after as many as a hundred and forty. They were all older than Rafe, however, and were experienced in the work; besides, they were allowed more time. The overseer appeared to take a peculiar delight in keeping Rafe at some humiliating task about the huts until it was nearly night, then hurrying him off to his sap-gathering, knowing well that the boy could not complete the work until after dark, and that he could not do it so well as though he had been given sufficient time. But that did not seem to bother the overseer, for it occasioned further excuse for using his tongue and stick upon the boy.

Fearfully Rafe's eyes searched the surroundings, and more than once his hand clutched at the small, hatchet-like instrument in his belt, but still he hurried forward. No matter how his limbs might tremble, his breath catch, his eyes dilate, he knew that it would be safer for him to go on than to turn back. Once, under the deeper shadows of a gum alimbo, he thought he saw a huge serpent crossing his path, and he sprang back with a low cry of terror. But it was only a limb, with a large but harmless lizard flattening itself upon the bark to escape observation. He had seen the lizard move, and thought it was the limb. With a half-sobbing laugh of mingled relief and derision at his foolish terror, he sprang over the limb and sped on. A few yards more brought him to the trees which the overseer had marked.

A quick blow of the sharp instrument made an incision in a tree, under which one of the diminutive cups was placed. Other blows followed, each quick and true, and under each incision a cup was fastened. In this manner eighteen cups were placed at varying intervals about the trunk of the rubber tree. By the time the last was affixed, tiny lines of thick, milky white sap were beginning

to trickle from the incisions first made. Then Rafe went on to the next tree. This was larger, and, instead of eighteen, twenty-four cups were placed about the trunk. Some of the old, mature trees in the grove yielded sap for as many as thirty cups.

There were only three trees marked by the overseer, and on the third Rafe put fourteen cups. Then he hurried with his calabash to the trees whose cups were already filled with the trickling of the last few hours' sap. Cup after cup was emptied into the calabash and replaced on the tree trunk, until at last, at the tenth tree, Rafe stopped and raised the calabash laboriously to his shoulder. It was full.

Half an hour later he was back again, hurriedly emptying and replacing the small cups. There were many trees yet to be attended to, and he wanted to get as much done as possible before it became quite dark. After that he would have to start a small fire in the grove in order to be able to find his way from the camp.

He ran all the way from the camp to the grove now, trying to close his ears to the terrifying sounds around; but on the way back he was obliged to go very slowly, on account of his load. The third trip he could just see the tree trunks on each side. When he started back on the fourth he was obliged to hold the calabash on his shoulder with one hand and keep the other outstretched to avoid running against the tree trunks before he saw them. This time he took the precaution of starting a small fire of boughs in the grove, lest he might not be able to find his way back to it. At the other end of the route, through the drooping, intervening foliage, he could see a faint twinkle. That was the camp fire. It was not so very far. But in that darkness, with the sinister, whispering foliage screening all behind, there were many real and imaginary terrors between.

"K-kr-ker, koo-yak, s-s-s-s-sh," came from the darkness to his right, and "W-o-ow, oo-oo, oo-ya, s-s-pit-z-zt-zt," quavered from the other wall of darkness to his left, and

Rafe whitened yet more and caught his breath and clinched his teeth and felt an almost irresistible impulse to drop the calabash and run. But he did not. He only walked the slower, thrusting his feet forward very carefully and deliberately, feeling his way with them even as he was searching with his eyes to avoid contact with the trees. But for the darkness, one could have seen that, though his eyes were wide and dilated and his limbs trembling, his jaws were very squarely set.

Suddenly he heard a swift pattering of footsteps, coming nearer and yet nearer, and he stopped short. Then something brushed his leg, clung to it, and began to climb up. But almost at the same instant came a familiar half-sob, half-bark, and he recognized one of the little camp monkeys whom he had often fed. The pitiful little cry was almost human in its sudden joy and relief. Evidently the animal had been seeking him, and had encountered some danger, fancied or real. As he climbed to the shoulder and over the calabash to the top of Rafe's head, the monkey's terror gave place to an angry chatter of defiance and denunciation, directed toward some unseen enemy in the darkness. Apparently the little animal considered his present position impregnable, and was ready to aid his protector in any aggressive movement.

Rafe stood perfectly still, listening. What had occasioned the monkey's terror, and was it there somewhere in the darkness watching them? And if so, would it advance or retreat? Then he heard a low, stealthy, slipping sort of sound, and he caught his breath sharply, and for a moment his very heart ceased its beating. He could not see even the calabash upon his shoulder; but his senses were so alert, his nerves so strained, his knowledge of the forest such, that he understood. Some snakes were fond of monkeys; and this one, instead of retreating, was advancing toward them, slowly, slowly. He knew it just as perfectly as though it were broad daylight, and he stood there awaiting the approach. "S-sh-er-we-

ah-sh, s-s-sh-er-we-ah-sh," came the almost imperceptible sound of the slipping advance, and now he could see two points of swaying light gloating at them from the blackness, and so near that his very blood seemed to congeal in his veins. Behind the eyes his strained nerves could see a thick, lithe body, alert in its hunger, perhaps twelve, possibly eighteen, feet in length.

From its position on his head the monkey was chattering hatred and defiance toward the enemy; but the possibility of throwing the small claimant on his protection to the snake, and thus securing his own escape, never occurred to Rafe.

Yet he must do something, and quickly. It would be useless to run, for the snake in its hungry activity could soon overtake them, even should they climb a tree. And he had no weapon save the small hatchet in his belt; nor was there time to seek for a club. And, after all, what protection would such things be against a foe like this? Another moment, and the monster would hurl itself forward, and then the great folds would enclose them swiftly, inexorably. Rafe grabbed the calabash of thickening rubber with both hands, and despite the monkey's protests, poised it for a moment above his head; then, as the eyes advanced, he flung the contents straight upon them.

CHAPTER II.

ALL who have handled rubber in its crude, soft state know something of its capabilities. Rafe knew, and even as the viscous, adhesive mass left the calabash he grasped the monkey and sprang away. And he was not an instant too soon. As the rubber closed about the eyes and head of the snake in a yielding but implacable helmet, the suffocating, blinded prisoner gave a wild lunge forward, and then began to thrash about in fearful contortions. Sometimes it seemed to Rafe that it threw itself ten feet into the air and as many feet to either side in that number of seconds. Small bushes and plants were flattened or torn up by the roots, and the ground was plowed and broken and flung into hillocks and ridges. Every few minutes a sharp crack announced the breaking of some tree trunk as large as its own body, against which the folds had hurled themselves with fearful force.

But Rafe did not wait to see all this. He had had enough of both darkness and snake, and, holding tightly to the calabash and monkey, he sped back to the fire in the grove. There he stood trembling for some moments, listening to the fearful struggle for life going on back there in the darkness. Then his self-control reasserted itself. Even in the supreme moment of peril he had not completely lost sight of the overseer. He had held on to the calabash.

Now the thought of the overseer over yonder in camp again became paramount. With the monkey still clinging to his head and shoulders, from which it noisily refused to be removed, he returned to his sap-gathering, taking with him a torch from the fire. When the calabash was once more full he started toward the camp, still bearing the torch.

By this time the snake had thrashed itself to some distance in the forest, and, although its struggles were less violent than at first, they were still too fearful for Rafe or the monkey to view with equanimity. As they neared the place of the encounter, Rafe's steps grew softer and more cautious, and even the monkey ceased its chattering. They could hear the struggle going on only a short distance away now, and both breathed more freely when they had passed and the sounds of the writhing and tumbling came to them more and more indistinctly from behind.

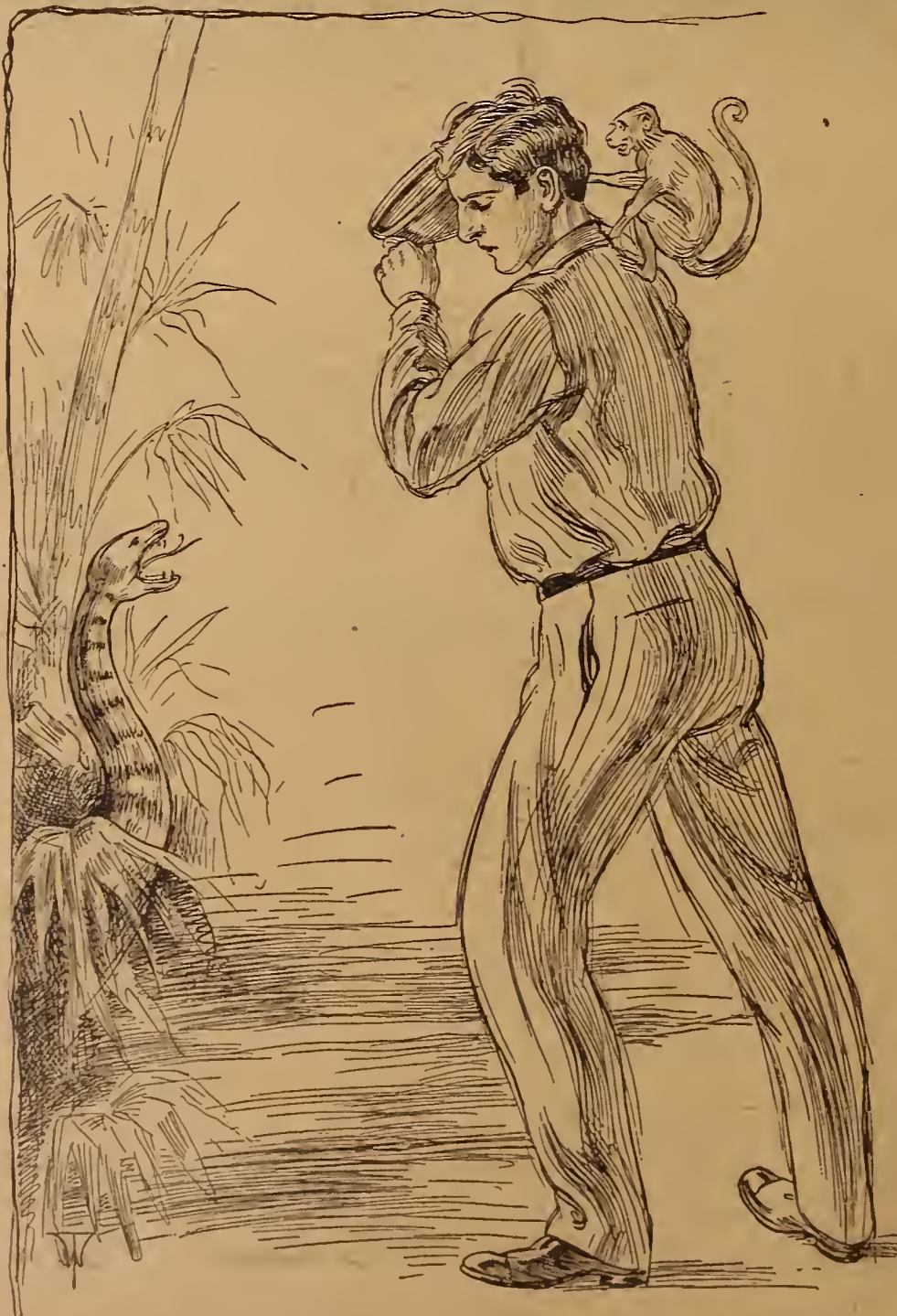
The overseer was standing outside of the first "smoke huts" when Rafe appeared. He had been scolding one of the men, but turned instantly to the boy. "Hey, dere! you lazy boy, Rafe," he cried angrily. "What you been do 'long yourself all dis time? I been able go to two time, ten time, an' you jes' get roun'? Hurry you now an' empty dat calabash, queeck. Better you fly. Den come here an' feel my steeck. I put him on good dis time—br-r-r-rh!" The last exclamation was caused by sight of the monkey, which he had not seen before, and which had slipped down upon Rafe's back and was now peering warily over the boy's shoulder. "You—you—dat how come you stay so long. I tell you go work, an' you play fool 'long o' dat monkey. I feex you. Never you min' 'bout empty de calabash. Set it right down an' come here, queeck. Br-r-r-rh! I teach you!—I t-e-a-c-h y-o-u!"

"I am much sorry, senor," said Rafe quietly, but with set face. "I come quick as I can; but I spill one calabash, and have to go back and fill again. And in the dark I do not work so fast."

"You spill, s-p-i-l-l one calabash? How dat?"

"I threw it over a snake's eyes, to blind

[CONTINUED ON PAGE 23]



Rafe grabbed the calabash of thickening rubber with both hands, and . . . as the eyes advanced he flung the contents straight upon them

THE WOODS IN WINTER



A SNOW-BURDENED ROAD

PHOTOGRAPH BY R. E. SCHOLLES



A WINTER NIGHT

COURTESY BY VERAZ MONTES



THE LAST OF THE FLOCK

PHOTOGRAPH BY E. H. BAYNE



WHERE MR. AND MRS. MUSKRAT LIVE

PHOTOGRAPH BY E. H. BAYNE



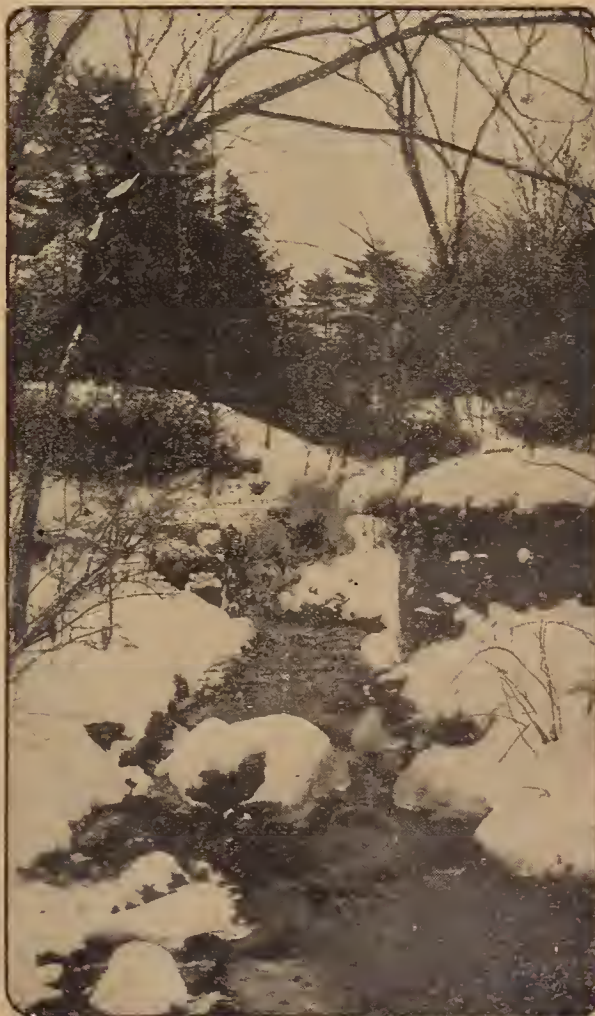
WHERE THE MUSKRAT MAY BE FOUND

PHOTOGRAPH BY R. E. SCHOLLES



THE ROAD THROUGH THE WOODS

PHOTOGRAPH BY E. H. BAYNE



A SNOW-BOUND BROOK

PHOTOGRAPH BY J. H. REYNOLDS

The Strange Adventures of Helen Mortimer

By Maude Roosevelt

Synopsis of Previous Chapters

"An old lady going abroad wishes a young woman to act as traveling companion, must not be over twenty-five, and be able to speak French."

Helen Mortimer, a poor, New York girl, gets the position. Mrs. Harold Pancoast, her employer, entrusts her with a small steamer trunk, the contents of which are of great and mysterious value. Mrs. Pancoast fails to put in an appearance, and Helen sails alone. Helen makes the acquaintance of Mrs. and Miss Watson, the latter of whom absorbs much of the attention of one Guy Halifax. A George R. Barrington forces his attentions on Helen, and Worrendale, another character, seems to be in league with Barrington. A telegram containing a London address is stolen from Helen's stateroom by Madame Patrie. Charles Lawson, a spendthrift, introduces himself to Helen. Halifax helps Helen to the train, and then leaves to look after the Watsons. Barrington took the same coach, and when Victoria was reached, he helped Helen to a carriage and asked for her trunk check. Helen, suspicious, insisted that he leave his grip and coat in the cab. He did not return, so Helen, in desperation, directed the cab-driver to the address Halifax had given her, and started alone and without the trunk. In the coat that Barrington left Helen finds the stolen telegram. Helen cables Mrs. Pancoast that the trunk had been stolen, and she gets instructions that her employer had sailed. A man named Black attempts to recover Barrington's papers by entering Helen's room in the dead of night. Helen frustrates his plans by wildly firing a revolver and arousing the whole house. Helen gets notice to vacate her room. She starts out in a London fog in search of another stopping place, and is kidnapped by Black. She escapes from cab, gets lost in the fog, and enters a men's club where she is rudely handled. Worrendale unexpectedly rescues her. They encounter Black as they are leaving the den of vice, and Helen is soon a prisoner in the home of Mrs. Morris, alias Madame Patrie, where they vainly endeavor to locate Barrington's papers. Helen outwits them and is released. She learns Mrs. Pancoast is in London. At the boarding house a Mrs. Featherstone takes a liking to Helen and shows her about the city. Helen fears she is being spied upon by detectives, and her life becomes miserable.

"WELL, we drove until late in the afternoon, then returned to the boarding-house. Mrs. Featherstone asked me to have tea with her in her rooms;—she has the whole second floor, and must pay a lot for it. This is the one thing suspicious about her. Why should she be in a boarding-house when she is evidently wealthy enough to have a sumptuous house of her own? However, under the circumstances, I felt that I should not be over-squeamish, and as she appears to be a lady, and has been most kind to me, I remained with her until dinner-time. The next day I had tea with her again, and she questioned me about myself not curiously, but as though she were really interested; and I told her I had come over from New York to act as traveling companion to Mrs. Pancoast, and some of the particulars, but nothing concerning the trunk and other disagreeable features of the situation.

"Do you think she is purposely avoiding you?" she asked, when I had told her as much as I thought advisable, and I replied, not quite honestly, that I did not know.

"It seems to me very strange she should have sent you over alone," she said, "and even more strange that she did not await you at the address she gave. I can't understand what object she could have in doing so."

"Neither can I, it all seems very mysterious," I returned. "But as she paid my expenses over, and gave me money to last until she should follow, I could only believe her to be sincere in wanting my services."

"Perhaps she has since changed her mind, and wishes to throw off the responsibility of having brought you over," said Mrs. Featherstone. "Or perhaps she has decided not to come herself." And I replied, "I don't know, I am tired puzzling over it."

"What do you mean to do? Go back to New York?"

"I can't go back now, I haven't enough money," I said, "my only hope is to get some position in London, until I am able to pay my way back."

"She asked me some more questions which touched so closely upon the real state of affairs that I had to tell her I was in honor bound not to reveal all the particulars of my relations with Mrs. Pancoast."

"Of course, as to that you must do as you think best," she replied, "but it seems to me the woman has not been fair to you, and I think it would be much wiser of you to break off all connection with her, and make no more effort to find her."

"But I am using her money," I said, "and I must find her, or she will think I have stolen it."

"Nonsense! Since she has brought you over here and left you stranded, you have a perfect right to use the money she entrusted to you for that purpose, for she would be obliged, in any case, to pay your way back to New York. The best plan for you to adopt, is to get something to do at once, and put her out of your thoughts altogether."

"Yes, but how?" I asked. "It will not be an easy matter to get a position here in

London where I am not known, and can give no references."

"Then, my dears, what do you think she said? 'How would you like to come with me to Paris, and act as my secretary? I am obliged to return to Paris the day after to-morrow, and it would be a great comfort for me to have you, for I need some one to write my many English letters.'"

"I was so thrilled by the proposal I never stopped to think what dangers it might entail, for I knew no more about her than I had known concerning Mrs. Pancoast. But the idea of getting out of London, and away from the constant dread of being arrested for a crime I had no means of proving myself innocent of, was too attractive to be resisted; and, after a little more talk, I agreed to accompany her at a salary of thirty dollars a month."

"But what do you know of me?" I asked, when everything was settled. "I may be a most dishonest person."

"At which she laughed, and said, 'If I cannot trust my fifty-odd years of experience to have made me a pretty fair judge of human nature, I deserve to be deceived. However, I have never been mistaken in any one so far, and I feel sure you will not prove the exception. During these days we have known each other, I have studied you very carefully, and although I suspect you the victim of a dishonest woman, who has entangled you in some mysterious difficulty, you are not willing to confide, I am not in the least uncertain as to your own propriety, and am willing to run the risks.'"

"I thanked her, and explained that I should only too gladly confide everything to her if it were not that I had no positive proof that Mrs. Pancoast had not been fair to me, and until I was sure I felt myself in honor bound to keep her confidence. She accepted this very graciously, and said she admired me for my loyalty, and so forth; and it was arranged we were to leave the following Wednesday, which was the day before I began this letter. She then told me that in Paris, and in fact to the world in general, she was known as Madame Durozzi,—you know, the celebrated vocal teacher, and one-time well-known operatic singer! After her husband's death she found she was obliged to turn to her art for support, and she has built up a great name for herself as a teacher. She kept me up late that night telling me the romance of her life, how her husband had heard her sing, in the opera at Milan in the zenith of her career, had fallen in love with her, and she with him, and although he had very little to offer her, she had given up her ambitions and success on the stage to become his wife. His people had opposed the marriage, cut him off with a shilling, etc., but they spent

five happy years together, until he was ordered to Africa, where he died, and she was left with very little income and one child, a girl who died six years ago. I tell you one cannot but respect a woman who gets up in the face of such odds! She must have suffered a great deal, for her voice grew hard and bitter when she spoke of her husband's people, and the humiliations and difficulties she had to face after his death. She has been working now for twenty years, and has evidently made a large fortune, although she told me she had lost a great deal last year through bad investments. Wasn't that cruel, after her hard struggle! One would expect her to be rather cold and unsympathetic, after all she has gone through; but she is just the opposite, and seems to take so much kindly interest in every one who is struggling, or pursued by ill luck. I told her that night I believed fate selected certain persons to inflict with constant misfortune and disappointment, and she said:

"Oh, no, my dear, that is a very erroneous idea to hold. In the first place, it is not true, and in the second it undermines one's courage to even consider it. The persons who suffer the most in life are those who have within them the strength and ability to attain success independently, for the weak ones go under at the first blow, or throw themselves on others for protection. Had I given up in the beginning, and accepted the alms my husband's people offered, I might have been saved a lot of suffering and labor, but where should I have been to-day? Merely a creature dependent on their charity. There is nearly always an easy way open to every one, if he is willing to accept it; and those who do are the sort who have no independence of spirit, and are considered fortunate; but to my idea their comfortable dependence is much more horrible than years of effort which is bound in the end to lead to success."

"I wanted to say that was all very well for one who has a set aim in view, and who has been in some way prepared to pursue it; but to one who is set adrift on the tide as I have been, with no point to steer for, and no ambition to struggle for, it is a different matter."

"But I did not want to cloud our relations by confronting her so early with my troubles, so I accepted her philosophy with due appreciation, and agreed with it tactfully; for I have learned it is a bad plan to oppose opinions that are the harvest of long experience. It is much easier to agree, even when they do not suit one's own case."

"You see I am getting wise slowly; and as sagacity is the only quality I have to depend on, the more I develop it, the better for my prospects of being enrolled some day

with the wise virgins! That parable of the virgins has never meant so much to me as it does now. One must indeed have one's lamp lighted in this world of pitfalls and stumbling blocks, and not least, must one be able to throw its light on the faces of people, for success lies through a correct understanding of humanity. At least it does with one situated as I am."

"Well, enough of moralizing! I must tell you what happened the day before we left London."

"In the afternoon Mrs. Featherstone asked me to go with her to an agent's, and one or two other places; and we went in the 'Tube' as far as the Marble Arch, where we took a hansom and drove down Oxford Street to the agent's, and then on to a music shop. Here she left me to wait in the hansom, and I enjoyed sitting there watching the crowds passing to and fro, and the conglomeration of huge busses, hansoms, and beautiful open victorias occupied by exquisitely gowned society women. I don't think there is any city in the world where the streets are so interesting as in London."

"In New York every one looks so alike, it is difficult to tell a lady from a housemaid, but in London the classes are distinct, even in dress, and it is most amusing to watch the throngs, and note the difference of station and taste displayed. Here a Coster girl,—with bedraggled faded skirt, pinned together in the back with a crooked safety-pin; a shabby straw sailor hat tilted over her nose, unkempt hair, and large red ungloved hands, waving about like uncontrollable appendages; and, right behind her, a tall, well-groomed woman in tailor suit, hair in a net and hands neatly gloved; then a Parisian model, all feathers, veil and froufrou, followed by a decrepit old man, wearing a battered stovepipe hat of Dickens' time, muttering audibly to himself, and entirely ignored by every one!"

"I was so absorbed watching them all, that I did not notice a hansom, which drew up facing me, until the occupants had alighted. A bright blue feather in the girl's hat attracted my attention, and I glanced up at her just as she looked at me. It was Ethel Watson!"

"I know she recognized me, for she stared straight in my face for fully two seconds, then, my dears, turned deliberately away without so much as nodding!"

"But this was not all. Her companion was no other than Guy Halifax! Looking so handsome, in his tall hat and frock coat! I felt my heart stop when I saw him, and shrank back, hoping with an unreasonable sense of shame and guilt that he would not see me. But I might have saved myself the trouble, for he walked with her into a



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shop, without even glancing at me. I know he saw me; he couldn't have helped doing so, for they were both within a few feet of me.

"Oh, girls, you cannot know how I felt, knowing what he thought of me; for of course they have both heard all that occurred in that Oakley Street house. Probably Ethel Watson was stopping at the very house he had directed me to, and she had heard it all from the landlady, and had told it to him. He was too much of a gentleman to let me see he recognized me; but she had deliberately and cruelly cut me. For a moment I felt so faint I could not think, then sudden rage at the injustice of it made my blood run hot, and tempted me to go in after them and force that girl to recognize me, or explain why she would not, and to tell Halifax there and then that all he had heard was false.

"But, of course, that would have been silly and futile, and when I remembered that I had in a way strengthened whatever vile reports he had heard of me, by not replying to his letter, my heart sank in utter despair of ever being able to vindicate myself in his sight. It was only then that I realized how much I cared, for the sight of him brought back his influence with a force I had not believed it could possibly have attained over me.

"Of course, I shall survive it; people don't die of this sort of thing nowadays, but I think anything would have been better than to have him think of me always with contempt, and discuss me as a disreputable person with that girl! Oh, it is too bitter! What right has she to look down upon me? Certainly I have never been so lacking in dignity and self-respect as she has shown herself to be. She absolutely pursued Halifax, and now she is probably engaged to him!

"He can't have much strength of character to have allowed her to wind him about her finger, as she apparently has done, especially as he did not seem to have such a very high opinion of her on board the 'Cedric'! But you remember I told you then, I was sure she would entangle him? She was determined to do it, and she has probably left no stone unturned to accomplish her aim.

"Doesn't it seem unfair that one person should have everything come her way, and another be thrown innocently into all sorts of undeserved difficulties!

"However, I don't really care, except that I resent being misjudged when I have done nothing to deserve it; and my heart grows hot when I think of that Ethel Watson's insolence in daring to cut me. Wicked and unchristian as it may be, I want to punish her for that, and I shall not lose the chance if it is ever offered!

"When Mrs. Featherstone came back to the hansom, she asked, 'What is the matter? You look so pale?' I replied, 'I feel tired.'

"She looked at me critically and said:

"I am afraid something has occurred to upset you; do you prefer not to tell me of it?"

"It was nothing," I returned, "only I—saw a friend, some one I used to know quite well, it made me feel rather unhappy a moment, that is all."

"I know this did not satisfy her, but she said nothing more about it, and we drove home almost silently, for my heart was too heavy to permit me to talk.

"I was simply crazy to know if Ethel Watson was at the Queen Anne Street house, and when we got back, I left Mrs. Featherstone at the door, and went down to a cigar shop at the corner where there was a telephone, and looked up the landlady's name. Much to my delight I found there was a telephone in the house, and I asked the man in the shop to call it up and ask if Miss Ethel Watson were stopping there. The answer came back, yes, but she was not at home; if there was any message, it would be given her as soon as she returned.

"I told him to say there was no message, and walked back to the boarding-house as though some one were pursuing me, and feeling my blood run hot and cold alternately, as I thought of all they had been saying of me, in that Queen Anne Street house, while always before me was the vision of Ethel Watson as she had appeared that moment on the street, in her becoming hat and well-cut gown, looking with scorn at me in the same suit I had worn on the ship!

"Well, I lived through an hour of black and evil thoughts in my room before the dressing bell rang, and I felt that I hated not only Ethel Watson, but Halifax, and every one else in the world! I wanted to do something bad, I didn't care what, for since I was treated as a criminal, why shouldn't I be one?

"There was no possible way of ever proving myself innocent of the charges I knew the woman on Oakley Street had brought against me; and when I thought of that Watson girl marrying Halifax, and having all in the world she could wish for, while I am denied everything, even the good name which I have tried to keep unsullied in spite of poverty and my unprotected condition, I was determined I should not drift on any longer, getting nothing out of life but misery and disgrace; so I sat down and wrote a recklessly nice note to Lawson, in reply to his, which I had not yet answered. What will come of it, I don't know, I can't even remember what I said, except that I was leaving for Paris the next day, and hoped if he were coming to London, he would run over there to see me.

"I put it with the other letters to be posted on the hall table when I went in to dinner, and when I came out they had all been taken to the post box, so it was too

late to regret it, even if I had been in a mood to do so, which I certainly was not.

"But I must tell you what occurred at dinner.

"Mrs. Featherstone, who, with her maid's assistance, had been packing all morning and ever since we returned in the afternoon, was too tired to come down, so had her dinner served in her room. We were to leave the next morning at eight o'clock, to get the Havre boat, and I intended to retire early, for, although my packing was not exhausting, as you can well imagine, I was very tired, morally more than physically, and I wanted to sleep and forget everything. But the fates had decreed I was not to have any peace of mind that night, and sent a new blow to harrow my soul!

"The usual gathering of old women were at the table, and one who sat next to me, leaned over, while I was eating my soup, and said:

"Your name is Mortimer, is it not?" and I said, 'Yes.' While cold chills ran up and down my spine as they always do now when any one asks me any leading question like that.

"Is your first name Helen?" she asked, increasing my inward terror, and when I replied that it was, she took a paper from her lap, neatly folded in a square, and pointing a crooked finger at a certain paragraph in the center of the square, said, 'Then this must be intended for you.'

"I felt the color go from my face, and my heart seemed to stand still, as I saw every one looked at me just as those wretches did in the other house.

"I took the paper and tried to read, but at first the letters all ran into each other, and it was a full moment before I could make out the words, which were these:

"If Miss Helen Mortimer will address Wescott, Times Office, she will learn something to her advantage."

"It is intended for you, is it not?" asked the woman at my side, leaning nearer me eagerly, and I, by then grown calmer and wishing to thwart her curiosity, returned indifferently, 'I'm sure I don't know. I can't see how it can be.'

"But that is your name, is it not?" she persisted, and that 'is it not?' got on my nerves so, I felt like murdering her!

"My name is Helen Mortimer," I replied, 'but it is not an uncommon name, and as I know no one in London with whom it could possibly be of advantage for me to communicate, it must mean another Helen Mortimer.'

"It is scarcely likely any one else would have the two names combined," remarked some one across the table, 'that would be an odd coincidence!'

"Perhaps," I returned coldly, unconsciously adding to the suspicions of every one, 'but stranger things than that occur every day.'

"I saw some of the surreptitious glances that were exchanged, and realized I was only stimulating curiosity and suspicion by treating the matter lightly, so I asked the woman next me if she would let me have the paper, as I might answer it and learn if by any chance, it could be meant for me.

"Some unknown relative may have died and left me a fortune," I said, trying to treat it as a joke, although in my heart I felt it was some trick of Barrington's to get me in his power again."

Helen's next letter arrived while Edith was away on her honeymoon, and came as a boon to the one left to pursue in solitude her uneventful routine of work. It was even heavier than usual, and bore a number of French stamps, and the postmark of Paris. Mary opened it with a sigh of gratitude for the diversion, and settled herself comfortably for a long read that promised to be absorbingly interesting.

"17 Avenue d'Iena, Paris.

"Well, here I am, girls, in the Mecca of my dreams, beautiful, bright, exhilarating Paris! It is even more lovely than I had pictured in my longing fancies. This apartment is on the third étage of a large apartment-building about two blocks from the beautiful brilliant champs Elysées, upon another wide avenue, and not far from the Bois.

"It is adorable! Exquisitely furnished, and in the music-room there is a collection of the most interesting photographs, autographed by many of the most celebrated singers of the day, who have studied under Madame Durozzi.

"I shall call Mrs. Featherstone by her professional name in the future, and shall write you everything, day by day, just as it occurs, like a diary, and send you instalments once a week. As Edith will probably be married by the time this arrives in New York, I shall address my letters in the future to Mary, for I know she will be lonely separated from us both. I shall think of you, Edith dear, upon the auspicious day, which is now so near, and save my soul so I may send you my blessings while the knot is being tied. How true that fortune we told you from your teacup is coming out. Do you remember, it said you were to be married within the year to a young man you already knew, and who would be very wealthy in the course of a few years? I do hope that part is to be realized also, and that one at least, of the trio may live in affluence and joy! Dear old George, any woman who marries him is bound to be happy! Give him a cousinly, sisterly, tender salutation from me on his left cheek, where the beard doesn't grow!

"Well, to return to heavenly Paris. I must tell you that I have a most delightful little room to myself, fitted up with the daintiest white curtains, and things characteristically

French, and the dearest white and gold iron bed that is so comfortable I hated to get up this morning. It looks out on a courtyard, as neat as a pin, and perfectly quiet, except when a handsome equipage rolls in, or a white capped 'bonne' exchanges pleasantries from her window with a chef, also white-capped, in the apartment below! It is almost impossible to understand their French, they speak so rapidly;—and, indeed, I find mine must be oiled up considerably to keep pace with Parisians! Madame Durozzi keeps two servants besides her own personal maid, and everything is done by routine in the apartment.

"I was awakened this morning at seven o'clock by the femme de chambre's bright 'Bon jour, mademoiselle!' as she entered my room and placed on a table near my bed, a dear little tray covered with a spotless white napkin ornamented by a border of pale pink roses. On it was a coffee-set of white and pink; two horseshoe rolls, and a square pat of white butter.

"It was so deliciously dainty, no feast of the gods could have made a stronger appeal. While I was enjoying it, she brought in a small tub, and two large tin pitchers of water, one hot and the other cold.

"Well, I can tell you I felt like a princess; and the rest of the day has proved quite as lovely as the beginning. Madame Durozzi treats me as a guest, although she at once designated what my duties are to be. You will be amused when you hear how heavy they are!

"I am to keep her lesson accounts; that is, attend to all the business and financial part, note who has paid and who has not, and attend to all the arrangements with pupils; appoint the hours she can give each, answer their letters, and so forth. At first I was afraid I should not be capable, but after she had explained everything and showed me the books, I saw it was really very easy, and she seemed satisfied with my understanding of the duties involved.

"I must tell you a little about Madame Durozzi, for, as things look now, I may be with her for an indefinite time, and, judging by to-day, I can look forward to doing so with perfect content. She is large, with a strong, handsome face, although the features are rather heavy for a woman. Her profile is strikingly like the impression of Louis the Fourteenth one sees on old French coins, and there is a sort of austere gravity about her, that makes one feel she comes of a powerful and aristocratic race. I never have heard her raise her voice. Even at the railway station, when a 'facteur' went off in the wrong direction with her bags, she was as cool as a cucumber, and calmly sent another after him. When she is angry her voice gets deeper, but never loud, and it is far more terrifying than if she raged. I think she has a terrible temper, but keeps it under wonderful control, and she is the keenest observer I have ever seen in my life. Nothing escapes her, although she appears to be quite indifferent as to what goes on about her; and I feel, when she asks me a question, that she knows the true answer before I can speak it.

"I like her immensely, her very gravity and force brings out one's own strength of character, for to be trifling or foolish with her would seem as incongruous as to invite the Queen of England to skip the rope! No pupils are to come until to-morrow, so this afternoon she took me for a drive in a lovely victoria, which she hires when she needs it. We drove down the Champs Elysées as far as the Place de la Concorde, and back to the Etoile; then through the Bois de Boulogne, and oh, I enjoyed it so much! There can be no avenue in the world more beautiful than the Champs Elysées. It is magnificently broad, and on either side are tree-shaded gardens, where gay cafés and restaurants are concealed. It was simply crowded with smart equipages of all sorts, and open cabs. Automobiles by the thousand, and of every conceivable sort rushed past us; high carts, tandems, and even four-in-hand coaches. The air simply rang with the tooting of motor horns, and tinkle of bells, for every carriage horse, private or to hire, is obliged by law to carry one bell or more, as the rubber tires of the vehicles cannot be heard on the asphalt, and the traffic is so great it is as much as one's life is worth to cross the streets, especially as the Paris Sargent de Ville is not to be compared to the London 'Bobby' in the fulfilment of his duties, and perfect discipline.

"Nothing could be more gay or festive looking than Paris on a sunny day; the air is alive with what seems like merry sounds, although it is difficult to define just why they seem merry;—while on every side is some bright touch of color;—the red coats of soldiers; the glittering helmet of a mounted gendarme, careering picturesquely through the sunlight, with black plume flying; the long, brilliantly colored ribbons and fantastic attire of 'bonnes' tending children under the trees; and the bright-feathered hats and costumes of the mondaines in carriages. And yet there is also a strange influence of melancholy underlying it all, like an undefined echo from the past, which makes all its beauty appear at times like the glittering decorations that hide a coffin. At least so it impressed me when I looked on those brooding palaces at the Place de la Concorde, and thought of the hideous scaffold their windows had once looked down upon, and of Marie Antoinette, and all the other hapless victims whose blood was spilt upon the very spot where now a lovely fountain plays.

"Madame Durozzi told me some very interesting stories of Paris during the Siege, which she had witnessed herself. She also

pointed out some of the celebrated Parisian beauties as they passed us, but I must say I could not see their beauty! They are all so terribly fixed up; their hair all exquisitely curled and puffed, and piled up into hats, cocked to one side or over their noses, as though they were stuck on, like dolls' hats, and never intended to be taken off. Their faces are all so deathly white, and their lips so crimson, they remind me of circus clowns. Madame Durozzi says they do not belong to the higher social class. I suppose they must correspond to what we call our 'smart set' in New York.

"It is very rare to see a man and a woman driving together here. The women are generally alone, or have a finely bred dog sitting up beside them, and they look perfectly satisfied with themselves and the world in general, but it is that same cultivated expression our smart women assume in public places, as if just intended to create envy.

"Madame Durozzi had two friends to dinner, a typical Frenchwoman, whose one paramount idea appears to be to disguise her age under hair dye and white wash;—by the by, I have discovered Madame D. does not wear a wig, but her hair is dyed a blue black regularly every month, she told me so quite openly;—and a man of about sixty, blind in one eye, a writer of great prominence here, and most cultivated and interesting.

"Well, as there is nothing else to tell you of my first day in Paris, and I am most deliciously sleepy and contented, I shall say good-night, and write you more to-morrow. There is only one little thorn in my bed of roses, and that is I have not told Madame D. about that notice addressed to me in the London paper. I feel rather guilty for not doing so, but as it may have been put in by one of that Barrington tribe, I think it is better to let it pass, for I don't believe Mrs. Pancoast would have done it, without giving her initials at least, or something that would have shown me it was from her.

"I have allowed three days to pass without adding to this epistle, dears, because during that time nothing of the slightest importance happened. Pupils arrived every half hour, from nine o'clock in the morning until five in the afternoon, with an interval of an hour for luncheon; and after five I had letters to write, and other duties in connection with the 'business.' Every day the same continual round of receiving pupils, registering their lessons, making appointments, and arranging for hearings.

"It is in a way monotonous, but I like it. Some of the pupils are very nice, and oh, it is so lovely to feel I am really doing something for what I get! Madame D. drives every afternoon from half past five to seven, and she certainly deserves the recreation, for she works like a trum! She directs a class of twenty girls for two hours every morning, and then until five gives separate lessons to more advanced pupils, of half an hour each. Of course, she has an accompanist to do the piano part, but the strain of teaching leaves her very tired at the end of the day. She has taken me to drive only once since the first afternoon, as she generally goes to visit some one, or stops for a friend. The blind literatureur seems a great favorite of hers, he comes in very often of an evening, and occasionally dines informally, which is very good for me, as they speak the most beautiful French together, and mine is rapidly improving.

"One of the pupils, an American girl, of about twenty-five, in whose future Madame D. appears to have great hopes, lunched with us to-day, and in the midst of the meal, much to my surprise and confusion, a note was brought to me from the Ritz,—the most fashionable hotel in Paris!

"It was from Lawson asking if he might see me this afternoon, and telling me to send my reply by the bearer. Madame D. pretended indifference, and, after nodding permission when I asked pardon for opening the note, continued her conversation with the pupil as though my receiving communications from the Ritz were a matter of everyday occurrence.

"I didn't know exactly what to do, so handed her the note, and asked her advice.

"If you know him sufficiently well, and he is a nice man, see him by all means," she said when she had read it. 'Why should you not? I don't want you to feel you are in a prison here. Go to my desk, and tell him to come up after five o'clock.'

"So I did, and, my dears, he came in a bright red Panard automobile, and asked me to go for a drive in the Bois. Doesn't it seem like a fairy tale? I never felt more sublimely happy in my life!

"He had a chauffeur, so he and I sat together in the back, and we sped like a bird in and out the crowd of vehicles, all through the principal drives of the Bois, and saw every one worth seeing, I think, in Paris, for the roads were crowded with beautiful turn-outs, and people riding and walking. It was really heavenly to feel I was one of that happy, careless throng living only to enjoy themselves! Oh, I tell you, wealth is everything! It makes life worth living; and, after all, why shouldn't people enjoy this beautiful world? Surely God did not make it so lovely for us to sit down in a dark room and eat our hearts out pining for things we can't have? It makes one good to be happy I find, and I know I did not feel good when I was unhappy;—I felt sometimes anything but good.

"Lawson was awfully nice, and appeared so interested in all I am doing, that I told him something of my condition; that is, I explained that I had to make my way in the world, and told him what I am doing

[CONTINUED ON PAGE 32]

Great Paintings of Famous Bits of History



PICKETT'S CHARGE AT GETTYSBURG

Painted by T. de Thulstrup

One of the most daring charges in history. On the third day at Gettysburg, Pickett with twelve thousand men attacked the Union position. He marched a mile in the face of a galling fire from one hundred guns, gained the hilltop, but was repulsed, and Lee was obliged to retreat.



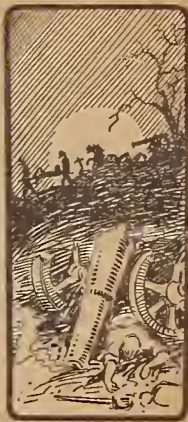
CUSHING DESTROYING THE "ALBEMARLE"

Painted by R. F. Zogbaum

Lieutenant Cushing, with the object of destroying the terrible ram "Albemarle," took a small launch, and with twelve men carried a torpedo in the dead of night into Confederate waters. He was discovered and fired upon, but placed the torpedo under the ram, exploded it, and escaped.

THE COUNTRY BOY IN THE ARMY

By
Morris Wade



UNCLE SAM is calling steadily for recruits for his regular army, although the mere possibility of our country entering into war with any foreign power seems very remote, and certainly we are too much united by bonds of self-interest and mutual affection and sympathy to be likely to go to war among ourselves. The advocates of peace and the workers in that good cause declare that it is impossible that our country should ever again be concerned in any great and devastating wars, such as we have known to our bitter sorrow in the past. And yet the fact remains that we are spending more money for the implements of war than ever before in the history of our country. It is a surprising, a stupendous fact that we are spending for the current fiscal year the enormous sum of \$375,659,791 for military purposes, or sixty-four per cent of the total expenses of the government. This in times of peace without the least little war cloud on the horizon!

We are building warships costing more than all the buildings and land and entire equipment of any university in the land, with the salaries for a year of all the teachers added. And Uncle Sam is calling steadily for more recruits with which to equip these ships and to add to the forces on land. The demand is greater than the supply, as they will tell you at any recruiting station. This would not be true, perhaps, if Uncle Sam accepted all who offered themselves as recruits, but he is very exacting, and wants the flower of the land for his army.

In some lands service in the army for a certain length of time is obligatory on all young men of certain age. They may not escape it unless physically incapable of serving, but there is no such obligation in our land, excepting in times of actual war, when men may be drafted into the army, as was the case during the great Civil War. During our short, and happily brief, war with Spain the number of volunteers exceeded the demand, and no doubt thousands of men would rush to arms if the country were in peril who would decline to enter the regular army.

Not a very large proportion of the "raw recruits" of the regular army are from the country. The military career does not seem to appeal to a very large number of country boys. Perhaps this is because of the fact that it is rather a hard way to gain a livelihood. The pay is small while one is "in the ranks," and one advances slowly to the high places in the army. At best only a very small proportion of the recruits may hope to attain to these high places where one may disport oneself in the full splendor of an admiral or other officer of high degree on sea or land. The boy who understands the situation may well hesitate between his prospect as a private in the army all his life, and his life as his own master on the farm. But, of course, few boys who enter the army have any expectation of remaining in the ranks all of their lives or until they have become too old for army service of any kind.

The boy with military tendencies looks toward West Point, or some other military school, as the beginning of his military career, and if he is to enter the army at all it is well for him to have the ambition to begin well. Training at Annapolis or West Point will fit him for attaining to the highest position in the army. How does a boy get into the military academy at West Point? In this way: Each Congressional district and each territory and also the District of Columbia is entitled to have one cadet in the West Point Academy. The President of the United States also has the right to appoint twenty-cadets, but it is a kind of an unwritten rule that these appointments should be given to the sons of officers already in the army. Such boys are pretty apt to make good soldiers. The Secretary of War appoints the delegates from the various states and territories, and the names of the candidates are nearly always suggested to him by the congressmen from the different congressional districts. Of course the appointee must be a resident of the district from which he is appointed. He must be between the ages of seventeen and twenty-two years. If he "stands in" with the congressman from his district, or if he has friends who are able to influence the congressman in his behalf, all the better. He usually needs a pull of some sort to secure his appointment. Sometimes there are a number of applicants from each district, and again there may not be but three or four. Sometimes a competitive examination of all the candidates is held in a certain place in the district, and the person passing the best examination secures the place. The candidate first makes his application to the Secretary of War, who puts his name on the list and then the influence of the repre-

sentative or congressman is secured in having the candidate appointed to the place.

But securing the appointment is the merest beginning. Then the real trouble begins. The candidate for admission to the academy at West Point or the army through the regular recruiting station must be prepared to undergo a very severe physical examination, and he may be rejected for so slight a cause as very poor teeth or a slight impediment in his speech. An applicant for admission to the academy at West Point may be disqualified for any one of the following reasons:

Feeble constitution; unsound health from whatever cause; indications of former disease; glandular swellings or other symptoms of scrofula.

Chronic cutaneous affections, especially of the scalp.

Severe injuries of the bones of the head; convulsions.

Impaired vision from whatever cause; inflammatory affections of the eyelids; immobility or irregularity of the iris.

Deafness, copious discharge from the ears.

Loss of many teeth, or the teeth generally unsound.

Impediment of speech.

Want of due capacity of the chest, and any other indication of a liability to pulmonary disease.

Impaired or inadequate efficiency of one or both of the superior extremities on account of fractures, especially of the clavicula, contraction of a joint or a deformity of any kind.

An unusual excurvature or incurvature of the spine.

Hernia.

A varicose state of the veins or impaired or inadequate efficiency of one or both of the inferior extremities on account of varicose veins, fractures, malformations (such as flat feet), lameness, unequal length, bunions, overlying or supernumerary toes.

Ulcers or unsound cicatrices of ulcers, likely to break out afresh.

Now if you have inclinations toward the army it might be very well for you to take this list of requirements to a physician and have him tell you if you can fill the bill. You see that it takes a pretty sound boy to do it. If you were to send to the military academy at West Point for a list of both the mental and physical requirements of candidates for admission to that institution you would find this bit of good advice in one of the circulars sent to you:

"It is suggested to all candidates for admission to the Military Academy that before leaving their place of residence for West Point they should cause themselves to be thoroughly examined by a competent physician and by a teacher or instructor in good standing. By such an examination any serious disqualification or deficiency in mental preparation would be revealed and the candidate probably spared the expense and trouble of a useless journey and the mortification of rejection. It should be understood that the informal examination here recommended is solely for the convenience and benefit of the candidates themselves, and can in no way affect the decision of the academical and medical examining boards at West Point."

The superintendent of the Academy will send to any one asking for it a full list of the educational requirements of candidates. These requirements are not very severe, and the schoolboy of seventeen who has applied himself faithfully to his studies, should be able to pass this examination, since the subjects in which he will be examined are grammar, arithmetic, geography, spelling, history, reading and writing. The poor speller should "brush up" or this alone may disqualify him. Here are some of the test questions in arithmetic to which candidates for admission to West Point have been subjected and which give a good idea of the knowledge of arithmetic required:

Multiply 4.32 by .00012.
How many men would be required to cultivate a field of 25½ acres in 5½ days of ten hours each, if each man completed 77 square yards in nine hours?

A wins 9 games out of 15 when playing against B, and 16 out of 52 when playing against C. How many games out of 118 should C win playing against B?

English shillings are coined from a metal which contains 37 parts of silver to 3 parts of alloy; one pound of this metal is coined into 66 shillings. The United States silver dollar weighs 412.5 grains and consists of 9 parts of silver to one of alloy. What fraction of the United States dollar will contain the same amount of silver as one English shilling?

It will, of course, take rather a bright boy to "figger out" the replies to these questions, and some boys will be apt to say, "What has all this to do with me being a good soldier?" Supposing you address that question to the superintendent at West Point.

He can give you good and sufficient reasons for propounding questions that seem so remote from all military tactics.

You will have to know enough about English grammar to be able to define the various parts of speech, and give their classes and properties. You will have to give inflections, including declension, conjugation and comparison. You will have to give the corresponding masculine and feminine gender nouns, and be able to apply the ordinary rules of syntax. Of course you must know how to parse fully and correctly. Some schoolboys would think the examination in grammar pretty severe, and the schoolboy who "just hates grammar" would perhaps find it difficult to pass the examination without a good deal of extra study of that detested subject.

In the history examination the candidate would find himself bumping up against such questions as these:

Name the earliest European settlements within the present limits of the United States—when, where, and by whom made.

What was the difference between the royal, the charter, and the proprietary colonies?

How many colonies were there originally in Massachusetts and Connecticut? When were they united?

How many in Pennsylvania? When were they separated?

What were the principal events and results of the wars of King William, Queen Anne, King George and the French and Indian?

Explain the Navigation Act, the Stamp Act, the Writs of Assistance.

Give the names of the Presidents of the United States in order, and the leading events in the administration of each.

These questions might "stump" a good many well-educated persons a good deal older than the candidates for admission to West Point, and, after all, it takes a pretty alert boy to answer them and all the other questions the successful candidate must answer. There is one thing that the boy who proposes to become a soldier must make up his mind to, and that is to yield the most implicit obedience to orders. The boy who has been inclined to be "fractious" at home, and who has insisted on having his own way, will have to eat large slices of humble pie when he goes into training as a soldier boy. The least impertinence to a superior, or any deviation from the straight line of duty, will bring its immediate discipline. The army is a pretty good place in which to tone down a hot-headed youngster.

Then the boy who has the failings so common to boykind, and who has not hitherto been in the habit of washing back of his ears and polishing the heels of his shoes may as well understand first as last that no such slackness will be tolerated in the army. Not a bit of it. The most exquisite cleanliness and neatness are required in any military training-school. Everything has its place, and so small a thing as leaving a cap or anything else out of place will call for a reprimand. Everything is systematic to the last degree in an army camp or school. There are certain hours for doing everything, and everything must be done at that time. There is no such thing as "by-and-by" or "after awhile" in a military school. The discipline is very rigid, but no more so than it should be. Indeed, it would be well for thousands of our American boys if they could have the splendid discipline in order, system and absolute devotion to the duty of the moment that the military school affords.

As to the financial rewards of the soldier, the cadet at West Point is paid \$540 a year when he enters the Academy. This seems like pretty big pay, but let us see what the cadet must do with his allowance from Uncle Sam. He must purchase four full sets of uniform, an overcoat and a round dozen pair of white trousers, and those trousers must be kept white and exchanged for another pair when they begin to show a mused or rumpled appearance. He must have a great many pairs of white gloves, to say nothing of a large supply of belts, snowy collars, handkerchiefs and shirts. He pays a part of the expense of his board, for gas, barbers, heating, and he must pay for having those shoes of his kept shining all of the time. The cadet who saves anything out of his salary of five hundred and forty dollars is the exception.

When a student at West Point is graduated he is entitled to the pay of a second lieutenant, which is fifteen hundred dollars a year, but his expenses will have so increased that he has little chance to save any part of this increased pay. At the end of five years of service he is entitled to an increase of ten per cent in his pay, and not until another five years does he receive another ten per cent increase. At the end of twenty years his pay will have increased forty per cent. So you see that the army offers no "get-rich-quick" opportunities to

young men. Of course, when one advances to the higher positions the salary is greater, but the expenses are correspondingly greater. Of course they have their pensions for life if injured in the service or when discharged after they have reached the old-age limit.

You understand, of course, that one must do a great deal of studying after one enters the Academy. One's "book-learning" does not end with the beginning of one's career as a student at West Point. There is much to be learned beside military tactics. The boy who is in his fourth year at West Point finds himself pegging away at such alluring topics as stereotomy, civil engineering, elements of law, international law, astronomy, system of exterior ballistics, instruction in bridge-building, military engineering, and other studies requiring a great deal of severe mental application if one would pass the regular examinations with credit.

If a boy is determined to enter the army let him do his utmost to enter through the medium of some good military school. But no matter how he enters he must be prepared for a great deal of very hard work and rigid discipline. A good many states now have training-ships on which boys are trained for naval service. Massachusetts has such a ship, on which about one hundred young fellows are trained. But they must pay a part of the cost of their training, and the pay is very small, even when they have taken the entire course of training.

It is of interest to know that only about two thirds of the candidates for admission to West Point succeed in passing the examination, and that of those who pass the examination but about one half succeed in graduating.

Peter Michie, the noted educator, has given us some very interesting accounts of life at West Point, and boys who contemplate entering the army would do well to read his books pertaining to army life. He gives an amusing instance of a boy who, after receiving the circulars from the superintendent giving the details of the terms of admission to the Academy, wrote in reply:

"I received your terms some time since. I cannot come under any such terms. I will give you the terms that I will come under. I want only to study military tactics. I want to stay three years. I want forty dollars per month. At the end of that time I want a position over some army of the United States. I want you to send me a round-trip ticket there and back. I think I am both physically and mentally qualified to fill the position. I will not be out anything, but I want the position. Please answer this."

I believe that any army officer of wide experience would be apt to advise the farmer boy to "stick to the farm," and to be in no haste to shoulder arms unless the country was in peril and demanded such service.

The Soldier's Dream

Our bugles sang truce,—for the night-cloud had lowered
And the sentinel stars set their watch in the sky;
And thousands had sunk on the ground overpowered,
The weary to sleep, and the wounded to die.

When reposing that night on my pallet of straw,
By the wolf-scaring fagot that guarded the slain;
At the dead of the night a sweet vision I saw,
And thrice ere the morning I dreamt it again.

Methought from the battle-field's dreadful array,
Far, far I had roamed on a desolate track:
'Twas autumn,—and sunshine arose on the way
To the home of my fathers, that welcomed me back.

I flew to the pleasant fields traversed so oft
In life's morning march, when my bosom was young;
I heard my own mountain-goats bleating aloft,
And knew the sweet strain that the corn-reapers sung.

Then pledged we the wine-cup, and fondly I swore,
From my home and my weeping friends never to part;
My little ones kissed me a thousand times o'er,
Any my wife sobbed aloud in her fulness of heart.

"Stay, stay with us,—rest, thou art weary and worn;"
And fain was their war-broken soldier to stay;
But sorrow returned with the dawning of morn,
And the voice in my dreaming ear melted away.
—Thomas Campbell.

For The Young People



Teach Your Pussy Tricks

Most little girls have a pussy cat, just as most little boys have a dog. And the pussy can be taught cunning tricks almost as easily as the puppy.

Because they are so supple, cats can be trained to jump unusually high, even seven or eight feet in the air. Hold a tiny bit of meat in one hand, and a hoop in the other—a small barrel hoop will do. Hold it low at first, increase the height each day, and it will not be long before you can hold a hoop covered with bright tissue paper and ribbons high over your head, and Miss Pussy will spring through it with very little exertion. Then it will be quite easy to teach her to jump through your arms.

She can learn to sit up and to "say her prayers" just as a dog can—although it takes perhaps just a little bit more patience to teach her. Any cat can be taught to follow her little mistress even on long walks. Take tiny bits of meat at first, and urge her to go with you each day for a little longer walk. Reward her every little while with a bit of meat, and scratch her throat softly or rub your fingers back of her ears, which all pussies love. She will soon follow you as faithfully as any dog.

After putting pussy through any exercise, be sure to feed her, and she will be more willing next time. It is best to begin to teach pussy when she is quite young. I would advise never striking a cat. This intimidates them, and they do not understand what it means. More can be done with them if they are urged and encouraged by kind treatment.

Tom is Reliable

"**A**RE you sure that Tom put that letter into the office this morning?" asked Mr. Downe of his wife.

"Sure," answered his wife quietly. "Did you tell him to be sure? Did you say how very important it was for it to go? Did you impress the duty upon him?" he asked, excitedly.

"I did not," answered Mrs. Downe, "because I did not know its great importance; but I am sure Tom took it in season, and put it in himself. Tom never fails."

"That is a great thing to say of anybody, especially of a boy of his age," said he.

"Tom is reliable!" said the lady. "Reliability is the first and great thing in a business man; and, if Tom has got it to the extent which you give him credit for, he is worth his weight in gold," was the reply.

Mr. Downe went to his office; and in two hours he received a telegram in answer to his letter.

"Tom is reliable!" cried he. "Tom is a hired boy at Mr. Downe's; but his reliability has made him friends willing to do anything to help him on in the world. His reliability will be to him a fortune, a fortune that cannot take wings. How many boys who read this are thus rich?—The Evangelical Messenger."

Where the Leghorn Hen Nested

SHE was such a lively little Leghorn hen, and she looked so important and saucy. The children called her "Old Bid." Every day she laid a beautiful white egg in one corner of the dog's kennel. She was not like other hens, for as she approached this odd nest she cackled loudly, but after the egg was laid she slipped silently away, saying nothing at all about it. All Old Bid's eggs were the children's very own, but one day they found no egg in

Rover's house, nor on the next day, nor for two weeks. Old Bid was not lost, but she had certainly found a new nest. Finally they never saw her except at feeding time, and mamma said she was certainly sitting, which was a remarkable thing, for giddy young Leghorns usually leave such dull work to

"Oh, mamma, mamma, we've found out where Old Bid's nest is! We watched and we watched to see where she'd go after she'd eaten her breakfast, but she just ran around behind the woodhouse, and under the barn, and—"

"Into the raspberry bushes," interrupted Larry. "And when she thought

"I know!" exclaimed Larry. "I saw her fly right into the dove house!"

It was even so. Biddy had her nest in the dove cot thirty feet from the ground, and was sharing the house with the pigeons. The children were so excited they could talk of little else. They wondered how many eggs

Biddy had, and when the chickens would be hatched. Old Bid wouldn't tell, and Larry, a big boy of seven, couldn't possibly climb up to the dove house to find out for himself. Still there could be no doubt about it, for they saw her every day coming down for her food in peril of her life, slipping, flying and sliding after the clumsy manner of hens, and when the meal was finished she scrambled back in the same awkward way.

"How will she ever get the little chicks down when they are hatched?" asked Lucy, earnestly. "They can't fly down like the doves, and Old Bid can't take them anything to eat, for she can hardly get up there herself."

"She can't get them down," replied Larry, positively, "and we can't climb up to feed them, so they'll just have to stay there and starve." And the older

folks knew, though they didn't tell the children, that the poor chicks must certainly fall to their death from the dove cot where their rash mother had chosen to lay her eggs.

Early one morning Larry and Lucy rushed in breathless, with marvelous news. "Oh, mamma," panted Lucy, "Old Bid's chickens are hatched!"

"How do you know?" questioned mamma while Lucy paused for breath. "Why," gasped Larry, "she's right here in the yard clucking around, and she's got seven little baby chickens."

If this wasn't a true story, we should tell you just exactly how those chickens reached the ground, but no one ever knew. Old Bid was wiser than they thought, though it was always a mystery how she brought her chicks down from their lofty nest. But whether she carried them or whether they dropped, one thing is certain, no bones were broken, and Old Bid had as fine a young family as any stupid old hen which nested in the chicken house not a foot from the ground.

CAROL SPENCER MARTIN.

A Smart Rat

WHILE standing in a large wood shed, one end of which he had partitioned off with narrow slats as a fowl house, Mr. X heard a gnawing noise and looking about him saw a large brown rat darting away from a dog biscuit lying on the floor of the shed. He decided to remain quiet and watch to see whether this thief would return. Presently he did, and slyly glancing at Mr. X as if to say, "Now you let me alone and I'll let you alone," his ratship began dragging the biscuit over toward the slat partition behind which were the fowls chucking and scratching. He reached the laths and tried to drag the biscuit through them after him. It would not pass, being flat and broad. After some vain struggles with it, the rat vanished to return with another. The newcomer he stationed inside the fowl house. He himself came out and seized the biscuit by one corner. He then began tilting it up on its side, and the adroit friend poked his head through the slats and steadied it with him. In a few seconds the biscuit was held between them "up and down" and between rat number one's pushing without aid rat number two's pulling from within the barrier, the prize was forced triumphantly through the slats.—The Watchman.



BROTHER AND SISTER OUT FOR A TIME

the common hens. Larry and Lucy were now more anxious than ever to find out where Old Bid had her nest.

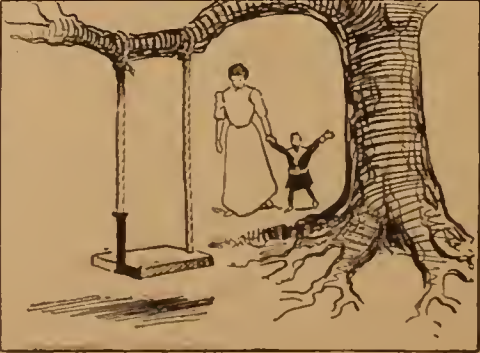
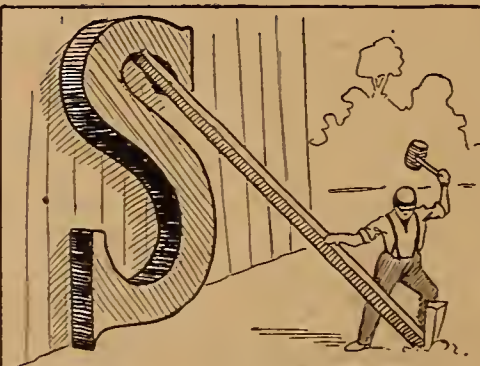
One day they rushed to the house in the greatest excitement, calling wildly,

we weren't looking, she flew up on the lowest side of the barn."

"Yes," put in Lucy, "and she flew, ran, and slipped, all up that long roof, and where do you suppose she went?"

The Puzzler

This Is the Season of the Year When Sleds Are Moving, so Take a Good Look at One and Endeavor to Ascertain What Parts of Same the Pictures Below Suggest



Answer to Puzzle in the January 1st Issue: Jude, James, Romans, Hebrews, Mark, Matthew

Rafe, the Rubber Gatherer

[CONTINUED FROM PAGE 16]

him," answered Rafe, stepping back a little at the dangerous look which was coming to the overseer's face. "The snake was a big one—big enough to break down trees when he struck them—and he was after the monkey. I had nothing but the sap to defend us, not even a stick. And of course I couldn't let it catch the monkey, if I could prevent. And I—I think, señor," stepping back still farther, "that the snake is dead by this time. Maybe it is the one that caught your dog and the señorita's parrot. I—"

"Br-r-rh!" shrieked the overseer, jumping clear of the ground in his insane rage. "You play 'long o' monkey when I tell you work, den you spill sap an' make snake lie to get off? Br-r-rh! I f-e-e-x you!" And, swinging his stick above his head, he sprang savagely upon the boy. With a terrified whimper the monkey dropped to the ground and scampered to the shelter of the nearest hut. Rafe did not move, except to bow his head so that his arms might protect his face from the furious storm of blows that were rained upon him. Not until the overseer was exhausted did the stick fall to his side. Then, "How you like dat you scare fool, hey? Goin' tell more snake lie, hey? Goin' play 'long o' monkey," be 'fraid dark, skip work, hey? I teach you, mebbe, you here long 'nough. No," as Rafe reached toward the calabash, which he had placed upon the ground; "you ain't goin' back to grove dis night. You goin' seet down; dat work you like—lazy work. Juan gettin' ole an' need help. You goin' be de help. Hey, you, Mendez," to the man whom he had been scolding when Rafe approached, "you empty dis calabash an' go feenish le scare fool's work. An' say, better you hurry, or you feel my steck. What, you not go yet?" turning to Rafe, who stood waiting. "Didn't you hear me tell you be Juan's help? Now you jump into smoke hut, queeck!"

Rafe started, and raised his eyes quickly to the overseer. But the grin on that malicious face was too significant and inexorable for protest, and he turned away silently and made his way toward Juan's hut. There were a number of these smoke huts along the edge of the camp; small, thatched cabins built on piles—for nearly always the rude hut of the rubber gatherer stands in the water, and especially those along the Amazon.

To make crude rubber of the milk-colored contents of the calabashes that are brought in from the grove requires a skilful and peculiar manipulation, and while the sap is being gathered preparations for this have been going on. A smouldering fire of palm nuts is made ready, the smoke from which transforms the gum into crude rubber of commerce. To concentrate this smoke, a jug-shaped earthenware vessel, constructed to answer the purpose of a chimney, is placed over the fire, and through the orifice pours the dense smoke caused by the burning palm nuts. Imagine a man sitting in a small hut, with no ventilation, and this thick, stifling smoke filling the atmosphere! A white man would suffocate in a few minutes, and even an Indian or negro would have to accustom himself to it by degrees. But the old rubber smoker goes calmly on with his work, apparently oblivious to any surrounding discomforts.

When everything is ready, he takes an implement much resembling a long-handled wooden spade, the blade, however, being round instead of square. Dipping this in the gum, he holds it over the smoke until the discoloration is complete. He then repeats this operation again and again, till the requisite thickness is obtained. When sufficiently thick, the mass is cut from the mold, and is then ready for the traders, who take it down the river in small boats and canoes. From whatever cause, the rubber thus prepared is the finest in the world. Rubber is grown in Africa, Asia, Assam, India, Singapore, Central and South America, but only on the upper Amazon is the very finest grade produced.

Rafe, in his two months of hard work, had learned much of rubber-making. He had a general knowledge of the tree's growth, the age when it should be tapped, the amount of sap which could be drawn with safety, and the proper seasons for taking, as well as the rest which should be given to keep the tree in healthy condition for a long yielding of its treasure. But of the smoking he had only such knowledge as had been obtained by stray glimpses into the smoke huts when their owners passed in or out. To him, they were black, cavernous depths, grewsome with fetid smoke and unseen terrors; and what little he had heard from the boys and men about the camp had intensified his terror of the rubber smokers' duties. There were stories of boys who had not been strong enough for tree planting or sap gathering or any of the camp work being assigned to a smoke hut, and of being almost instantly overcome by the horrible fumes. Once a monkey had slipped into a hut just as the door was being closed, and a little later he had been brought out dead. Fearful as the forest was at night, hard and exacting as work was under the baleful eyes of the overseer, Rafe would have felt either a happy release from what was ahead.

But he did not think to escape. The overseer was implacable, and the miles of thick, tangled forests which surrounded them were equally so. There was nothing for him but the smoke hut. It was inevitable. So he walked straight to the door and opened it, with his shoulders square and his head erect, for that was his way. A moment, and he had entered and closed the door behind him.

A Lullaby—By Evelyn Aldrich

Words by Leon M. Thompson

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p Moderato con espressione

Hush-a-by, my tired dar-ling,
'Tis not joy a-lone a-waits thee,

Close thine eyes in sleep,
Cares will hov-er 'round,

While the an-gels, hov'ring 'round thee,
Vines that bear too man-y flow-ers,

Ho-ly vig-ils keep;
Trail up-on the ground;

Naught of care disturbs thy slumbers,
May thy steps e'er be un-er-ring,

In-no-cence di-vine;
As they are to-day,

Could thy moth-er guide thy fu-ture,
And the sun-shine of thy child-hood

CHORUS. *Waltz lento.*

Peace would e'er be thine.
Ev-er light thy way.

Lul-la-by, lul-la-by, Rest thy tired head,

Mother's hand so soft-ly Rocks thy cra-dle bed.

Moth-er knows thy ev-'ry want,

Hears thy ev-'ry sigh;

Lul-la-by, my dar-ling,

Soft-ly lul-la-by.

[TO BE CONTINUED NEXT ISSUE]

The Art of Stenciling

WE HEAR a great deal of late about the "Arts and Crafts," "Interior Decorations," and "L'Art Nouveau," but when in an honest desire to beautify one's home the services of some of the numerous artistic workers to be had are obtained for even a very limited period, one finds that the purse must be fat indeed, and one's individual tastes set far in the background. And just here is where the stencil becomes a boon and blessing to every householder, for in all the long list of handicrafts placed so prominently before us by the craftsmen and women of to-day there is none more laudable from the standpoint of the home beautifier. One does not need to be an artist, nor a genius; any ordinary set of nimble fingers, guided by a reasonable amount of good taste and judgment may work wonders with this simple device at trifling cost. To be sure, the best results are obtainable only after a little practise, but of what is this not true? And this practise may be on such inexpensive material as to eliminate waste almost altogether.

The stencil is a pattern, the design on which is cut away, so that when the stencil is laid on a flat surface paints or dyes may be applied to just those open forms, leaving the background uncolored when the stencil is removed. Stencils are obtained ready for use at some of the largest shops, but it is much more satisfactory to make one, thus giving the work an individuality which no ready-made design could possibly imply.

Press board, or any stiff, firmly packed pasteboard is permissible for the stencil. Sheet metal is frequently used; oilcloth, sometimes, and even manila paper may be made to answer by a special treatment, the object being to use some material that will cut clean, leaving no ragged edges. The design, if one is not sufficiently familiar with such work to sketch one offhand, may be taken from some printed fabric, wall paper, rugs, or similar articles. After transferring the outline to the cardboard the design should be cut out with sharply pointed scissors or knife. If a knife is used the board should be placed on some hard, smooth surface. The grain of the wood or a tiny crack will sometimes cause the knife to work disastrous results to the lines or "ties," as they are called, which connect the various parts of the pattern. As it is absolutely necessary that these should be intact one must be very careful in this cutting process. The designs pictured show the cut-out portions in black, the white simulating the background. These are purposely bold and large, as such are much easier managed by the amateur than designs incorporating a lot of small details.

If ordinary pasteboard is used for the stencil it is safest to outline the holes with beeswax, soap, or something which will prevent any spreading of the dyes or paints during the work. It is never wise to undertake too large a stencil; make several for the various parts of the design if of unusual size.

Various mediums are used for the work. Oil paints, diluted with turpentine, or dyes are best on washable goods, while regular frescoers' colors are used for walls. However, if burlap is used on the walls the oil paints are practical and in some places more readily obtained.

Tapestry dyes may be softened and made lighter in tone by adding a little water, and a pinch of powdered albumen mixed in will help to set the colors, so that the article will stand laundering if that process is carefully managed. The tube paints must be thinned with turpentine, and as this lightens the color a little experimenting will be necessary to obtain just the desired shade. Enough turpentine must be used to prevent the work showing a gloss when dry.

Regular stenciling brushes are procurable, but any small round bristle brush may be utilized. Several at hand when more than one color is to be used will save the time and trouble of washing them.

Such materials as unbleached muslin, cheese cloth, crash, lawn, denim, burlap, pongee, wall paper, leather, wood, and, in fact, almost any plain-surfaced material, are suitable backgrounds for stenciling. As for its appropriate usage, there seems scarcely a limit to its adaptability. On walls, on curtains, portieres, screens, pillows, covers, and all manner of drapes and fancy articles, it is displayed alone or in conjunction with embroidery. Even wearing apparel is decorated with the stencil in delicate tints and dainty figures, and especially the odds and ends which go to make up the toilet, such as fans, parasols, hand bags and the like. Its possibilities seem truly limitless for the clever worker.

In carrying out the work a roomy table or bench is needed, with a sheet of paper or oilcloth spread out flat all over it if it is to be protected from possible spots and stains. Arrange your paints or dyes,



The Housewife

ready mixed; your bowl of water for cleansing purposes; brushes, cloths, and the like, before placing your stencil flat and smooth upon whatever fabric you are to use. And, as hinted at before, it is wisest to try a scrap or two first, either of the same or similar goods, to see just how the colors will look.

If the design is larger than one can hold firmly in place with one hand it can be adjusted with pins or draftsman's tacks.

Only a little paint or dye must be taken upon the brush at one time, as only a thin coating is desirable, and then if the

treasure box, out of which by and by will come some exquisite affair, that we will wonder over and admire, forgetting that it is made of some of our own waste material.

Janet dear is always willing to tell how she contrives these novelties—that is, so far as one who has the knack of making "something out of nothing" can enlighten another lacking in that respect—so we may describe this very useful receptacle. The foundation is a large cocoanut shell, sandpapered smooth, with three holes bored in the upper edge in which to tie the ribbon hangers. Out of her collection of scraps she took a piece of red-and-black plaid silk, out of which she cut a perfect circle (as luck would have it the scrap was just large enough) and gathered it to fit the outside of the shell.

A bit of narrow ribbon hid the raw edge, after the cover was adjusted. The inside was lined with a circle of dotted swiss, bound over the gathers with a narrow tape, then the two edges were caught together and a ruffle of linen lace put on to give a finish to the whole. Red baby ribbon doubled was used for the hangers, with a multiple bow at the top, and the thing was done.

To the novice at such work, it looked as if the process of making must have been much more complicated, but that is the way with all of Janet's work, we never are able to comprehend how she manages to contrive so many beautiful things in so short a time and with so little material.

HALE COOK.

Starting Seed

FLOWERS of annuals that are wanted for massing in beds should be started indoors in February or March, and then they are ready to make a display before the seed that are sown on the outside are fairly up, and the flowering season is so short that it is necessary to give many seed an early start. One of the most important requirements in floriculture is to start right, by buying seed fresh from a reliable seedsman.

In starting seed indoors use shallow boxes; three inches of earth is all that is necessary, usually, unless for very coarse seed, such as the dahlia and cosmos. I find the cigar boxes of the right depth, and these are light to handle. The tin fruit or tomato cans are excellent for this purpose, as they are not too deep and retain moisture. The small porous pots are not to be recommended, as they dry



HAIR RECEIVER

out so quickly. Have good drainage, then loose soil finely sifted—do not allow soil to come to top of box or can—settle or firm this soil, then sow seed thinly and sift soil over them, covering to a depth proportionate to size of seed. Keep moist but never wet; too many nip their floral aspirations in the bud by overwatering. One must water with care until the plants are of good size, but never allow them to dry out. Do not use fertilizers in seed boxes, as it causes unhealthy growth; be patient and have slow, sturdy growth. Use panes of window glass over boxes, or keep a damp flannel cloth wrung out several times a day, over them until plants appear.

The petunia, verbena, snapdragon and salvia are fine for bedding, and have a bed of pansies in a partially shaded place.

If one wishes a pretty edging plant the white sweet alyssum is unsurpassed, but this must carpet the ground for best effect and a number of plants will be required, so plenty of seed should be started. These germinate readily and the young plants grow like weeds.

The dahlia seed are much less expensive than bulbs; these seeds are coarse and grow very readily. Young plants grow rapidly and are ready to flower in August if seed are sown in February or March.

The cosmos requires an early start if one expects blooms before frost. Nearly all the seed from one package will germinate in from three to five days, but young plants are very tender, must not be placed too close to glass or the sun will scorch them, and too much water will cause them to damp off.

Canna seed are very hard and must be soaked or scalded before planting, and some advise pouring scalding water on soil after planting. These must be started in February or March to make any display during the summer.

There is nothing brighter for a late fall display than a large bed of the scarlet salvia, and if started early will begin blooming early in August. The verbena grows readily from seed and these are our most indispensable bedding plants, making such a brilliant display during the summer months, and often until late in the fall; most of them raised from seed are quite fragrant.

LAURA JONES.

Hot Tea Cakes

CORNISH SPLITS—Place 12 oz. of self-raising flour in a clean, deep basin; add to it a good pinch of salt, and work in 8 oz. of either butter or clarified beef dripping. Then add 8 oz. of well-dried and washed sultanas, or, if liked, 4 oz. of sultanas and 4 oz. of well washed and dried currants. Moisten with milk, and work to a smooth paste. Roll out to the thickness of an inch and a half, and stamp out into rounds and squares. Bake in a moderately hot oven, split with a silver fork (they must not be touched with a knife, note), and spread thickly with Devonshire cream. Serve as hot as possible. They must not be kept waiting when spread with the cream.

BABY CAKES—Place 1 lb. of self-rising flour in a deep basin. Add to it a good pinch of salt and a dessertspoonful of sifted sugar. Mix; work in quickly an ounce of butter or clarified beef dripping. Then add a pint of buttermilk, and work the whole as quickly as possible to a smooth paste. Roll out to the thickness of half an inch. Stamp it out into rounds with a thick tumbler. Prick in the center with a silver fork, and bake for from 20 to 25 minutes more or less, as the cakes are liked much or little done. Tear open with a fork. Butter thickly, and serve as hot as possible. (Note that they must not be cut with a knife.) The sugar may be omitted if liked.

CORNISH CAKES—Place 1 lb. of self-rising flour in a clean, deep basin. Add to it a good pinch of salt, and work into it 6 oz. of butter. Now add 8 oz. of well washed and dried currants, and work to a light dough with cream. If the latter is considered too expensive, milk may be used in its stead, but cream gives the best results. Have ready a well-floured pastry board. Roll the dough out to the thickness of half an inch. Then stamp out into rounds with a plain cutter. Bake in a very quick oven for from 25 to 30 minutes. Serve very hot. (Note that the dough should be handled as little as possible, and that when baked the cakes should be of a bright golden hue.)

INDIAN CAKES—Take ½ lb. of corn meal, add to it a good pinch of salt and 2 well-beaten eggs. Now stir in as quickly as possible, until thoroughly mixed, ½ lb. of golden syrup. When thoroughly mixed, stir in quickly 2 teaspoonfuls of baking powder. Have ready some very thickly buttered tins. Pour the mixture into these, and bake for 20 minutes in a very hot oven. Serve as soon as they are out of the oven.

Old-Fashioned Sponge Cake

THE following recipe for an old-fashioned sponge cake, if followed minutely, will prove infallible: Beat the yolks and whites of six fresh eggs together two minutes; add three measuring cupfuls of sugar, and beat the sugar and eggs five minutes. Mix two teaspoonfuls of cream of tartar with two cupfuls of flour, beat this together with the eggs and sugar two minutes. Next dissolve one teaspoonful of baking soda in a cup of cold water, pour it in with the other ingredients and beat them all one minute. Add the juice and grated rind of half a lemon, a saltspoonful of salt and two more cups of flour, and beat the whole together another minute. Observe the time exactly. Line two medium-sized cake pans with tissue paper buttered well on both sides. Pour the mixture in the pans and bake in a quick oven.



STENCIL DESIGNS

brush is too wet the colors are more likely to run. Do not try to paint in strokes, but lightly daub it on by little pats of the brush. When all the design is completed lift the stencil carefully so that it will not mar the work before it becomes dry. Wipe the stencil clean before laying it on the goods again.

Any conventionalized flower makes a pretty stencil, and color schemes are easily carried out after such designs. The iris illustrated may be used in border or all-over effects for a room where lavender or purple is liked, and wild roses, poppies, bluets, etc., form lovely patterns. Quaint figures and geometrical designs are also good. One design may be so simplified or elaborated upon as to produce sufficient variety for the numerous fabrics which go toward furnishing a room, thus providing a constantly recurring theme or motif, the varied guises of which cannot fail to be of interest. But one should beware of too great an influx of such embellishment. One tires quickly of anything overdone or of a monotonous effect. Broad spaces of unmolested plainness are needed as a setting for these decorative features.

The stencil shown as No. 2 forms a delightful border by repeating the device, or as shown it is pleasing on the ends of table runners or dresser covers. No. 3 is an odd conceit for the wall of a den, or will make up a unique pillow or chair seat used straight across its center. It is also good as a border on portieres and couch or library table covers, or for rugs of denim or burlap.

So many charming things suggest themselves when one becomes interested in stenciling that no one need long in vain for artistically furnished rooms if they are willing to set brain and fingers to work, and make the most of the common, every-day materials which so frequently are overlooked simply because of their cheapness.

MAE Y. MAHAFFY.

Janet's Hair Receiver

IN SISTER Janet's room is one of the best and most serviceable hair receivers I ever remember to have seen. It is also one of the prettiest.

She is always making something remarkably dainty out of scraps such as the rest of the family throw away or tuck in the rag bag—that is, if Miss Janet does not take a lien on them, for her

Getting Ready for a Journey

MORE and more farmers are taking their wives and going for little trips to the great cities of our land, and the journeys are productive of much good. Home never seems so dear as when seen on the return, and the new ideas and impressions will last a long time after coming home to brighten the lives and help over hard places. Of course where a woman goes to stay a month or several months, she makes elaborate preparations and takes a trunk, but it is with the little journey that this article deals.

In the first place don't think you must have a trunk for a stay of a week or ten days. You can have a much better time with all your belongings in a satchel or suitcase and it will cost much less. Some ladies think because the railroad carries trunks free it is a waste of good opportunities not to take one, but in the cities, expressmen and porters charge for their services and it is not always convenient to waste half a day looking after a modest piece of baggage. Plan carefully what you will take and pack it into a satchel. Take underclothing for example. In a city one can always buy ready-made gar-

being in readiness. Once you take a little trip without a trunk you will never be bothered again by this cumbersome article. Any woman can manage a satchel and an umbrella with ease, but a trunk is a different proposition. Avoid all unnecessary articles as you would trouble, and take only the "must haves."

HILDA RICHMOND.

A Remedy for the Candy Habit

IN A recent number of the FARM AND FIRESIDE some one asks why children desire candy in spite of the fact that often it does not agree with them.

The w-h-y, as an old German teacher used to say, I cannot answer, but I can give one remedy for the trouble. Let the children eat fully of raisins, figs, or dates and there will be little desire for candy or sugar.

The natural sugar in these dried fruits satisfies the craving for sweets, and the sugar being a natural instead of a manufactured food is most easily digested.

In a great many families, where five or ten cents is frequently given for buying candy, two or three raisins are occasionally doled out to the child and the box put securely away. It is a mistaken idea, and when any person, adult or child, craves sweets let them try eating raisins, figs or dates, and observe how the appetite is satisfied. Let these fruits be used freely, preferably at the table in place of more complicated desserts, but used anyway.

RUTH V. CLARK.

Good Things to Remember

WHEN making hot starch use soapy water. It will give a gloss to the linen, and prevent the iron from sticking to it.

See that the sides or walls of your meat safes are occasionally scoured with soap, or soap and slaked lime. All places where provisions are kept should be so constructed that a brisk current of cool air can be made to pass through them at will.

A good floor stain that goes right into the wood, and is very durable, is made of linseed oil colored with ground burnt umber. Rub thoroughly into the boards with a flannel pad, and next day polish with beeswax and turpentine.

When boiling cabbage place a small piece of stale white bread in the pot, and you will be spared the objectionable smell that usually accompanies this process.

Treatment for a Damp Wall—The outer walls of rooms are often damp, and the paper peels off in consequence. If coated with the following preparation there will be no more bother of this kind: Take a quart of a pound of shellac, add a quart of naphtha, and stir well together. Brush the wall over with the mixture, allow it to dry, and you will find it has become firm and hard.

To Clean White Paint—Mix whiting and warm water to the consistency of cream. Dip a clean flannel in the mixture, and rub the paint lightly with it. Rinse with clear water, and dry. When all traces of the whiting have been finally removed the paint will be beautifully clean.

Baby's Carriage Afghan

THIS pretty little robe is made in strips in pink and cream-white zephyr, and is a combination of afghan and roll sts.

Ch 15 sts (using the white wool) work off 1 round in afghan st.

In 2nd round make a roll of 6 overs pink, on 8 st.

3rd round plain.

In 4th round a pink roll on 7th and 9th sts.

5th round plain.

In 6th round a pink roll on 6th st, white roll on 8th st, pink roll on 10th st.

7th round plain.

In 8th round, a pink roll on 5th st, white roll on 7th st, white roll on 9th st, pink roll 11th st.

9th round plain.

Now reverse directions, decreasing the rolls till the diamond is complete, making the center of 4 white rolls bordered with pink rolls. After 1 round plain begin 2nd diamond with white roll, with pink rolls in the center.

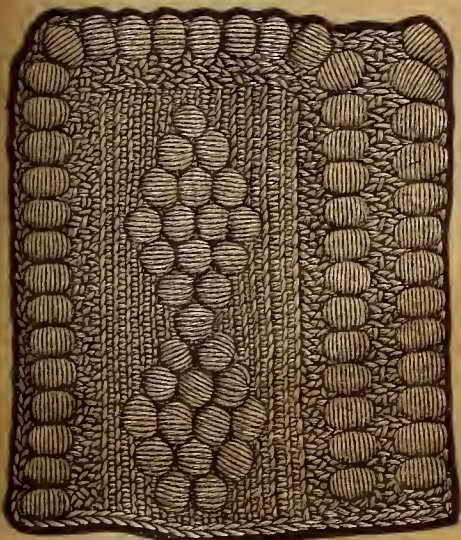
Repeat until the strip is long enough. Begin the 2nd strip with a diamond made like 2nd diamond in 1st strip, that the pink and white, and white and pink may come alternately throughout the pattern. On the inner side of each strip, 3 ch, sc, in every alternate st with the white wool.

2nd row, with pink wool 3 ch, sc in center of 3 ch.

3rd row, tie white wool in center of 3 ch, roll in same st, sc in center of next 3 ch, roll in same st, repeat.

4th row, with pink and wool ch 3, sc, in sc, repeat. Make this border on 2nd strip and join together at center of 3 ch. When the strips are all joined repeat the border given for strip all around the afghan, making extra fullness in turning the corners.

JULIA A. WILLIAMS.



BABY'S CARRIAGE AFGHAN

ments at reasonable prices, so it is well to leave the extra pieces at home. The same might be said of shirts and collars for the gentleman of the family, as you get late styles and good qualities, and people always need shirts and undergarments. One lady who takes a trip every winter to a city allows her clothes to run down so that she may take advantage of the city sales without seeming extravagant in buying garments she does not need.

Stockings and handkerchiefs are among the "must haves" for the new ones should always be washed before using. These articles take up little space and are not heavy. Extra shoes are also a necessity. No matter how comfortable your new shoes may be nor how large you have bought them for this special occasion, take an old pair along. At the World's Fair, the Pan-American, and St. Louis, and Portland Expositions it was possible to see hundreds of people on whom the beauty and grandeur of the buildings and everything were lost simply because their feet hurt. Save a pair of old, easy shoes to take along for emergencies. You will never regret carrying them for they may be worth their weight in gold before you get back. A young lady who went to the St. Louis Exposition said she saw a father, mother and two children seated on a bench with their shoes off unable to get them back on their swollen feet, and she remarked that the sight of their misery was all that kept her from removing her own shoes her feet hurt so badly.

By wearing a skirt that clears the ground, a dark underskirt and a silk or wool shirt-waist there will be no necessity for extra dresses or white petticoats in the satchel. A white or light silk shirt-waist, if you expect to go out in the evening, might be included, but your dark one will be right for all occasions. Ruching in the neck and sleeves will save carrying fresh turn-over collar and cuffs, but the latter take up little space and are considered nicer by most ladies.

Whether you go to a hotel or stay with friends you will want your own toilet articles. These may go in a linen or denim case with pockets, or simply be placed in a small pasteboard box. In either case they take up very little room. At a hotel take your own wash-cloth and a cake of good soap. In a small box put your pins, safety-pins, needles, black and white thread, several buttons, a pocket-knife, your favorite home remedy for constipation and some postage stamps. If you are in the habit of writing picture postal cards when away from home it is well to have some penny stamps, but for letters it is well to address stamped envelopes at home before you start.

All these things may be gotten ready a week before time and thus insure their

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Fashions in Gowns and Waists

By Grace Margaret Gould



No. 866—Bertha Waist with Sleeves in Two Styles

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of twenty-two-inch material, or three and one fourth yards of thirty-six-inch material, with two and one fourth yards of all-over lace for sleeves and chemisette

THE waist that is just a little different from the one that every other woman is wearing is the waist that appeals most strongly to the woman who has earned a reputation of always being smartly gowned.

The three separate waists illustrated on this page each have a special touch of originality. The Bertha Waist may be charmingly developed in two different fabrics, but each in the same color. The pattern provides for sleeves in two styles, but really the waist may be worn with three different sleeves. There is the short bell sleeve. Then there is the full-length leg-o'-mutton sleeve, and in addition to this, one may wear the long sleeve and the short sleeve together, letting the long one take the place of a glove.



No. 867—Empire Evening Gown

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, ten yards of thirty-six-inch material, or eight yards of forty-four-inch material, with one half yard of silk for girdle, one and one eighth yards of all-over lace for sleeves and chemisette, and two and five eighths yards of lace insertion



No. 869—Waist with Pompadour Bib

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three yards of twenty-two-inch material, or two yards of thirty-six-inch material, with one yard of all-over lace for trimming

This very original waist will look most effective developed in chiffon cloth, with the pompadour bib made of pompadour silk veiled with chiffon the same color as the body of the waist. Veiled effects are very much the vogue this season. Or the waist would also look extremely smart made of the new supple satin, with the pompadour bib of chiffon broadcloth heavily embroidered

No. 870—Waist with Dutch Neck

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, two and one half yards of thirty-six-inch material, or two yards of forty-four-inch material, with four yards of ribbon for trimming

No. 871—Full Skirt with Gathered Flounce

Pattern cut for 22, 24 and 26 inch waist measures. Length of skirt in front, 42 inches. Quantity of material required for medium size, or 24 inch waist, eight yards of thirty-six-inch material, or five and one half yards of forty-four-inch material, with fifteen yards of ribbon for trimming

No. 868—Paquin Vest-Waist

Pattern cut for 32, 34 and 36 inch bust measures. Quantity of material required for medium size, or 34 inch bust, three and one fourth yards of thirty-six-inch material, or two and one half yards of forty-eight-inch material



Copyright, 1906, by The Crowell Publishing Company. Send Orders, Giving Pattern Number, Bust and Waist Measures, to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, N. Y. Write for Catalogue of Fashionable Patterns, Sent Free on Request. The Price of Each Pattern is Ten Cents to Subscribers.

Curing a Bad Habit

WHEN Sir Sanford Fleming, the noted English engineer, inspected the proposed route of the Canadian Pacific Railway in 1883, he was accompanied by the Rev. George Munro Grant, prints the Youth's Companion. The party encountered the usual hardships of traveling through a wilderness, but had many interesting experiences. One of these, says Mr. Grant's biographer, was meeting the different parties of engineers stationed along the way.

The most picturesque person associated with this exploration of the mountains was Major Rogers, the discoverer and engineer of the passage through the Selkirk. Rogers was an energetic man, renowned for unconventional, but exceedingly profane. The engineers who were passed on the eastern slope of the mountains were in a state of great expectancy at the prospect of the hard-swearing Rogers being host to a clergyman.

Rogers at first was under the impression that Grant, who was addressed as "Doctor," was a medical man. The day after the first meeting was Sunday, and Fleming proposed that Doctor Grant should hold divine service.

The major took the suggestion as a joke, and with great energy drummed up his men. Doctor Grant preached at length, and dexterously brought the subject round to profane swearing.

Avoiding any appearance of aiming at any one hearer, he pointed out the uselessness of the habit, and incidentally noted its gradual disappearance from the conversation of gentlemen.

He had observed with accuracy one salient point in Roger's character. The man was passionately determined to live like a gentleman, and to have his men regard him as a gentleman. The discourse struck home. Then and there Rogers resolved to abstain.

Once at least during their stay with him his guest's pity was excited by his heroic suppression of his vocabulary at a trying moment. Something went wrong with one of the canoes. Rogers opened his mouth, but remembered his resolve, and stood helpless.

Grant laid his hand on his arm.

"Major, if you've got to get rid of it, go behind a tree and say it."

Sir William Van Horne was fond of telling of his first meeting with Rogers after this affair. After some talk, Sir William said:

"What's the matter with you, Rogers? You haven't sworn once."

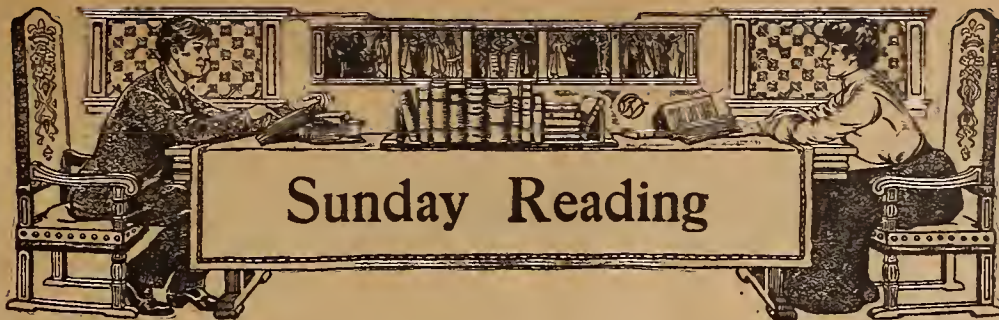
"Well, Mr. Van Horne, Fleming brought a parson up here named Grant. He gave us a sermon on swearing, and he made out that it wasn't gentlemanly to swear, so I stopped."

Drink.

IT is the patronage of the rum shop far more than it is the low wage that spells squalor in homes, heartbreaks for wives, and every woe for the helpless and dependent. Hence comes rags, hence comes desolation, hence comes every form of brutality, vice and crime that disgrace humanity. Few wives are beaten, few homes are turned into hells because of hard work and low wages; it is the drink devil who wields the whip and brings in the hell. There is no taskmaster who drives so cruelly as he, or lays on so heavy a lash. Much labor, both in its character and in its rewards, may be akin to slavery, but there is no bondage so galling, no servitude which exacts so much and gives so little, as the slavery of strong drink. Among all other good and true aims set before them, let the trades unions declare an unalterable and deadly enmity to the drink traffic, and they will achieve a larger good for workingmen than in all other efforts to which they can put their hearts and hands. Boycott the saloon, order a general strike along this line, and there will be a result in the homes and by the firesides of the world's toilers that will rejoice and bless humanity.—Leslie's Weekly.

Old Mines Exploded

A STRANGE fatality is reported from Japan. A floating mine, a legacy from the Russo-Japanese War, which has ever since been drifting around on the sea, struck the shore at Akita, on the west coast of Japan, and, exploding, killed ten and wounded 156 villagers. The Sea of Japan was sown with these floating mines in that war and they have been a source of much fear ever since, and several of them have exploded. That one of them should work such murderous havoc among innocent villagers more than a year after the close of the war is a pathetically sad event. War is dreadful enough while it is doing its work, without leaving behind it such floating mines of murder that may carry destruction and death to some faraway



shore. All evil has this mysterious power of perpetuating itself and exploding where it is never expected. The words we speak, the deeds we do, may long float around bearing in their bosom the evil we put into them, to blow up in some unexpected way. Heredity may carry such floating mines down into the next generation and there explode them among innocent children or children's children. The drunkard may set such mines loose on the stream of his descendants, and wealth is often such a floating mine in a family. While it is not true that "The good is oft interred with their bones," it is true that "The evil men do lives after them." The Presbyterian Banner well says: "Let us set nothing afloat on the sea of life that can carry death to any shore."

Converted Through a Stolen Bible

AN INDIAN newspaper recently contained the following narrative:

About six months ago, in one of the stations of the Methodist Episcopal Mission, a Christian died, named Jiwan Das. This man was a highway robber, a thug, by profession. On one occasion a native preacher was on the way to preach, in a certain village, when he was attacked by Jiwan Das, and his clothes were taken, as well as some Bible portions, which he had with him. The robber took the books to his house, where he had a son who was attending school. The boy asked his father to give him the books, which he did. One day the father, remembering the books he had brought, asked the boy to read to him. The lad began to read in the Book of Numbers, and it chanced that he opened the book at the chapter where it is written, "Be sure your sin will find you out." On hearing this the father began to tremble, and seemed so affected that the boy asked him what the matter was, but he gave no reply. Some days after the father took the book and began himself to read. The same verse came to him again. He was at once convinced of the solemn truth, and from that time began to read, first the Old Testament, then the New, in which he learned that the savior from sin is Jesus Christ. Hoping to realize in his own heart this great salvation, he went to the station at Badaon, where he was baptized by the late Rev. Dr. Hoskins, and from that time lived an exemplary Christian life, and so died.

An Abandoned Farm

Man has wearied of his task
And withdrawn;
Weeds grow rank and wild things
bask
On the lawn;
By the orchard, gnarled and gray,
House and barns sink to decay;
No blithe sounds of work or play
Greet the dawn.

Nature takes what man has spurned
To her heart;
Like a conqueror returned,
Routs man's art;
Through his fields deploys her lines,
Regiments of shrubs and vines;
Takes by storm or undermines
Every part.

How she flaunts her victory
This bright day!
Sets where every eye may see
Banners gay!
Purple jockeys, asters blue,
Meadow-sweet of creamy hue,
Goldenrod and primrose, too,
Line my way.

So my Soul for Care and Toil
Long oppressed,
Like this farm's exhausted soil,
Cries for rest.
Nature, take again thy child!
Lying fallow, free and wild;
Let me feel thy rigor mild,
Soothed and blessed.

—Edward Tallmadge Root, in The Independent.

Pure Thinking

"As a man thinketh so is he." Thought is a heart matter. It is the main-spring that moves the hands of the clock that point to the condition of life. One cannot long be one thing and

think another; nor can he for a length of time think one thing and be another. The stream must partake of the nature of the fountain. "Keep your heart with all diligence for out of it are the issues of life," is but another way of saying that life's destiny depends largely upon the thoughts that dwell within us.

Actions also are largely determined by thinking. Selfish thinking means selfish actions. Avaricious thinking means avaricious actions. Impure thinking means impure actions. Altruistic thinking means altruistic actions. Charitable thinking means charitable actions. Frivolous thinking means frivolous actions. Thoughts stamp themselves indelibly upon all that pertains to life. Judas harbored selfish, avaricious thoughts, and the betrayal was made possible.

Keep thoughts pure and actions will be pure. Two little girls were talking about a beautiful white lily that grew at the top of a long stem. One asked: "I wonder why the flower grows so high on the stem?" The other replied: "I think it is because it wants to keep out of and away from the dirt as far as it can so as to keep pure and clean." May she not have been right? Groveling thoughts besmirch the soul.

Three things are specially helpful in pure thinking: 1. Good companionship. 2. Good books. 3. Filling the heart with the Christ-spirit.—Christian Intelligencer.

Some Sayings of Sam Jones

"I LIVE here a prisoner of hope, but at last I shall overleap the circle of friends above my dying couch, and my spirit shall be free and mix with the freemen of heaven forever."

"A man's likes and dislikes determine his character."

"The cross is just half-way between heaven and hell."

"Every time a fellow gets his meanness off, it is dyspepsia."

"A man who believes only what he can see doesn't believe he has got a backbone."

"Some people are mighty gentle; so gentle that the devil has nothing to fear from them."

"If we would only quit our lying, we would get nine tenths of our difficulties out of the road."

"The trouble with humanity is, men dislike so much to give themselves to God just as they are."

"If the devil comes and stays with you, it is because you make him at home and treat him well and are kind to him."

"A man can't help evil thoughts from coming into his mind, but he can prevent them from developing into a purpose."

"There's only one grand trunk line to glory, and the only terminus of that grand trunk line is conviction and repentance."

"Many a man who has paid every dollar he owed in this world may be put in hell at last for being a thief. Theft is the unlawful taking of the property of another, without his knowledge and consent."

"A man partakes of the nature of the thing he is looking at with his mind and eye."

"If any man doesn't love God, it is because he doesn't know Him. To know Him is to love Him, and to love Him is to serve Him."

"A liar is a consolidated, concentrated lump of falsehood, and when he talks he tells lies just as easily as he lives in that atmosphere."

"Repentance is the gathering up of all sins in your life in one common pile and throwing them down, and then walking off from them."

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Some New Mexican Homes

There are a number of attractive buildings in New Mexico, but for the most part the dwelling houses are interesting and curious rather than picturesque. Adobe, which is sun-dried brick, is used everywhere for building construction. It is cheap and suited to the climatic conditions of the territory, which before long may divide a star with Arizona on the revised blue field of the American flag.

As a part of a prospective new state it is interesting to study New Mexico and the houses in which its people live. The best houses in the larger places naturally do not differ in many respects from those in other states, but on all sides are found the low, one-story structures, in which the great majority

Peter: "Petroleum . . . oleum est factum de petra . . . G[allice]. petroille." ("Petroleum is an oil made from rock—in French, petroille.") The property of "drawing fire" had struck the imagination long before the work quoted in "Nature" was published. In 1596 Lodge used it in a metaphor: "As

the house had a hole in it for the cats to pass through and they occupied soft beds made in large baskets.

CAT AMUSES THE BABY

A CAT in the household of William Jamison shows unusual attention to the baby of the family and faithfully

Evidently in fear of the death of the other rabbit, it was carried back to the field by the cat.—Philadelphia Record.

SOME CAT SUPERSTITIONS

NAPOLEON BONAPARTE showed a morbid horror of cats. The night before the battle of Waterloo a black cat passed near him, and at the sight the great warrior was completely unnerved. He saw an omen of defeat. Henry III. of France swooned whenever he saw a cat, and one of the Ferdinands of Germany would tremble in his boots if a harmless tabby got in the line of his vision.

Among the Romans, cat was a symbol of liberty. The Egyptians held the animal in veneration under the name of Aelurus, a deity with a human body and



Of Curious Interest



HOME OF AN INDIAN FAMILY IN NEW MEXICO



INDIAN WOMAN ENGAGED IN MAKING BREAD

of the people live. Even in Santa Fe such houses are common, and whether they are occupied by Indian, Mexican or American, may be determined to a large extent by the surroundings and general appearance.

The roofs of the houses are flat and the yards are walled in by adobe. The interiors of the houses are very simple and most of the domestic work is done by very primitive methods. One of the accompanying illustrations shows an Indian woman making bread. Another picture shows an out-of-door oven where the baking is done.

E. J. FARRINGTON.

Origin of Petroleum

THE first mention of petroleum in America was made by Father De la Roche d'Allien, a Frenchman, in 1629. It may be a surprise to many people to know that both the product itself and the names petrol and petroleum were

the clay petrol draweth fire, so the looks do gather affection." The word petrol (or petreol) disappeared from English, and did not return until the days of the motor car industry, when it was reintroduced from the French in the sense of refined petroleum.

Cat Tales

RICH CAT DIES

PINKEY, one of the two famous cats of Wilkes-Barre, to whom Benjamin F. Dilley bequeathed \$40,000, and provided a home and a nurse, died recently after receiving tender care and being treated by able physicians. Pinky developed a tumor in her throat and it gave her such pain that she was chloroformed with the consent of the executors of the estate.

For thirteen years Pinky and Blackie had been the pets of the late Benjamin F. Dilley, who died eighteen months

ago. When his will was read it contained a provision for the care of the cats, bequeathing to them a building valued at \$40,000, the two upper floors to be their homes until they died, and providing a nurse, Miss Ada Ruch, for them at \$75 a month. Every door in

lays at the child's feet every mouse she catches. The other day she captured a rat, which she did not kill before she brought it to the child, and allowed the rodent to scamper away several times, recapturing it each time as though to impress the baby with her skill. Members of the family in an adjoining room heard the sounds of the baby's glee and investigated, discovering what was going on.—Elkhart Correspondence Indianapolis News.

WISE PENNSYLVANIA CAT

A CAT that developed unusual traits is owned by a woman in Sellersville, Pennsylvania, and its strange action is the wonder of the neighborhood. The cat had a litter of kittens a few weeks ago.

Several days later she went out in the field and returned carrying a young rabbit in her mouth. This she placed among her kittens. The next day the

a cat's head. Whoever killed a cat, even by accident, was put to death. Diana assumed the form of a cat and excited the fury of the giants.—London Mirror.

The Barbers of Old

THE first barbers of whom there is any record plied their trade in Greece in the fifth century B. C. In Rome the first barbers operated in the third century B. C. In olden times in England the barber and the physician were identical. Thus, a King's barber was also his chief medical adviser.

In the time of Henry VIII. of England, laws were made concerning barbers, of which the following is an extract: "No person occupying a shaving or barbery in London shall use any surgery, letting of blood or other matter, except the drawing of teeth."

Almost every day we receive letters from subscribers telling us that FARM



AN ADOBE HOUSE IN SANTE FE, NEW MEXICO



A YARD SHOWING WELL AND ADOBE OVEN

familiar at least as far back as the middle of the fourteenth century. In the Sloane manuscript (fifteenth century) mention is made both of rock oil and of the correct derivation of the name, which is medieval Latin, and, of course, has nothing at all to do with

ago. When his will was read it contained a provision for the care of the cats, bequeathing to them a building valued at \$40,000, the two upper floors to be their homes until they died, and providing a nurse, Miss Ada Ruch, for them at \$75 a month. Every door in

cat made another trip to the field and came back carrying another young rabbit in her mouth. This she placed with the others, and all lived happily together, the kittens climbing all over the rabbits, playing together; but one week afterward one of the rabbits died.

AND FIRESIDE is worth more than the subscription price. We know it is, and our friends can show their appreciation if they will tell their neighbors about the paper and get them to subscribe. Will you do this? We will appreciate the favor.

Right of Commissioners to Change Grade of Road

A. H., Ohio, asks: "Have the county commissioners any right to make a fill in front of a man's house, yard and driveway on the public road, leaving a deep, steep bank higher than the yard level and leaving the house below the road so it will have to be raised up, not providing any way to get upon the road at yard gate or at driveway. There is a creek running through the place not far from the center, and goes on straight through a bridge under the road. The water comes from both ways, down the side of the road to the creek. They did not dig any ditch there, but turned more water down. The water runs any place it can find the way to the creek. There has never been any ditch dug there that I know of. There was but very little water came down until they graded, therefore needed no bridge particularly, but need one now. Are they compelled to build it? On asking the pike commissioners or supervisor he said he would fix it when he got time. He did the grading early in the spring. They have fixed every other place along the road. One thing I forgot to say was that they filled up to the top of a hill that is larger than the one they cut down, when they ought to have cut the top off of it and took it to the next hollow below."

Whether or not the commissioners have a right to change the grade of the public road so as to inconvenience or make a possible injury to an adjoining landowner is a question upon which I have been unable to find any direct legal authority. The law is well established in cities that where no grade has been established and set by the city authorities, that an adjoining lot-owner has no remedy if a grade is afterward established which may leave his lot in a very inconvenient condition and subject to considerable injury, but as to roads, as a general rule, there is no established grade; that is, a grade established by public authorities, and if cuts or fills are made, if the rule in the cities is to be followed, there would be no remedy. It is possible however that a road might under certain circumstances have an established grade, but the commissioners have full control of such roads, and it is a discretionary power vested in them to do with the roads, cutting or filling them in the manner they may think proper so as to give the public the largest degree of benefit from them. It is possible that if an adjoining landowner knew that he was going to be injured, a court of equity might compel the commissioners, if they made a deep cut or a hill fill to also prepare proper approaches, but just what the remedy might be after the work has been done I am not sure. The commissioners have no right to throw water upon an adjoining landowner, and a court of equity would compel them to give a proper outlet. But the injured party could not sue the commissioners and hold the county responsible unless the statute expressly gave such authority, and our statute gives none, so far as I have been able to discover. So it seems to me that about the best thing you could do would be to see the commissioners and get them to remedy the matter as much as possible. Usually the commissioners do not intend to injure any one, and I believe that if you keep the matter hot with them and keep your temper that they will give you the proper outlet to the road, and also take care of the water. Anyway, it would pay to try that kind of proceeding before you got into a lawsuit.

Right to Shut Up Road

C. C., Ohio, asks: "Can a road that was not laid out according to the statute but used continually as a public road for sixty years be fenced up or vacated without going through the regular legal form of petition?"

No, I do not believe that this road can be shut up in any other way except by a regular proceeding had under the laws of Ohio to vacate a public highway.

Title to Land by Adverse User

A. W., Ohio, writes: "(1) A. married, and his wife's father gave A. ten acres of land, as the wife would not take that little land. The father-in-law died without making a deed. This was thirty-two years ago. All his children knew that he gave this ten acres to A. and said nothing about it till recently. Is his gift good in law? A. has paid the tax on the land thirty-two years and it was considered by him and all the neighbors to be A.'s land. Can the heirs sell their supposed right to another man and put the land in court for partition, and take the land from A.? If so, can they sue and make A. pay yearly rent for thirty-two years? (2) Is there a law in Ohio that twenty-one years' peaceable

The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail.

possession will give a man a better title than heir's title."

It rather occurs to me from the statement above given that A. having exercised ownership, undisputed and acknowledged to be rightfully so by the previous owner for thirty-two years, that he would have such title now. That he could not be dispossessed, and even if he could be dispossessed, I do not think that they could require an accounting for the rents for more than six years past. The mere fact that the parties never lived on the land would not make much difference if they in fact had possession of it and exercised ownership over it. The querist enclosed some postage for answer, but no answer will be given by mail unless the query is accompanied by remittance, as stated at the head of this department.

Right of Inheritance

A. S., New York, inquires: "A. and B. buy a farm. B.'s wife dies, then A. dies, leaving no will, his people taking what he had before he was married. His widow sold her share to B. but left her money in the place. Then A.'s widow marries B. She died, leaving no will, leaving sisters living, one sister dead leaving two daughters. Can B. claim the use of the money as long as he lives, or is it to go to her people after she died? Can the nieces claim their mother's share in the estate, and also clothes and furniture, she having money left her by her parents? Is that to go to the sisters? Can the nieces claim their mother's share in that? Can the husband claim that to pay funeral expenses? Her sister's husband borrowed money of the widow; is that to go to the sisters?"

It seems from the above query that when the second wife of B. died she owned no real estate, neither did she have any children. All the real estate seemed to be in the name of her second husband, and as she had no children her personal property would go to her husband. So it occurs to me that neither the wife's nieces nor sisters would have any part in the inheritance.

Title to Adverse Possession

M. M. W., Ohio—What is meant by adverse use, such as will give title, is that it is a possession inconsistent with the right of the true owner. The essentials generally given to constitute such possession as will bar the title of the legal owner are: (1) It must be hostile, or adverse, (2) it must be actual, (3) visible, notorious, and exclusive, (4) continuous, and (5) it must be held under a claim or a color of title. The only way that a title could be reasonably determined and settled is to bring an action in court to quiet the title, making all the persons who have any possible interest therein parties to the suit.

Liability for Damage Done Upon the Lands of Another by Stock

L. B., Ohio, writes and says that he wrote a letter some two months ago and has not yet received an answer, and therefore writes again.

It is possibly true that a query was written at the time indicated, but the person in charge of this department has no recollection of having received it. Now as to the right to recover, my judgment would be that the owner of the damaged crops may have his choice of persons to sue. That is, he may sue his immediate adjoining neighbor, or he may sue the owner of the cattle. If he sues the owner of the cattle and should recover damages, the owner of the cattle might in turn proceed and sue the owner of adjoining lands by reason of whose defective fence the cattle were enabled to get over and damage the crops of the third person.

Surveyor's Lines

G. H., Ohio, inquires: "Does a half-section line have to be straight through a whole section from one quarter stone to the other, whether one quarter stone is twelve rods or more west of the center line? For the west one fourth that I own I got an abstract government title for 186.90 acres. Will it hold against the half-section stone, which is twelve rods or more out of line? The other party on the east has no govern-

ment deed on record. Will my government deed hold against them?"

As I understand the law relating to surveys, etc., monuments control the courses, and therefore if a stone monument was planted, although it might be out of the course prescribed by the deed or deeds, the monument would control, so in the above case, it seems to me that you would be able to hold your land over to the stone monument as planted by the government, notwithstanding the fact that the stone might be out of the true line. I would not go to law about it, but I would not permit any one to put their fence on what they claim to be the new line. If they did, or attempted to do so, I would tear it down, or I might apply to a court of equity as a last resort if they continued to do so to restrain them from proceeding in that manner.

Fencing Cemeteries in School Lands in Ohio

C. S., Ohio—Cemeteries that are under control of public authorities are required to be fenced by such authorities, but if the cemetery is under the control of a private corporation, I am rather of the opinion that the same rule would apply as to owners of adjoining property generally. As to school lands, I have always been of the opinion that the directors or board of education are required to build all the fences, although there may be some doubt upon this proposition.

The Right to Have an Outlet Through the Lands of Others

E. F. M., Ohio, asks: "A. and B. are father and son. A. gave 40 acres to B. by will. Now B. to get out drives over part of A.'s land. A. is dead and the heirs have sold the land to C. Can he shut up the road and make B. buy this road out, A. having helped to make the road, but failed to mention it in his will? Must the heirs erect a tombstone, though it is not mentioned in the will? Is it the law that it must be put up before the estate is settled?"

When A. gave B. this forty acres of land, if such forty acres had no road leading from it to the public highway, then the law will imply that the right to such road will be granted by A. to B. Especially is this true if there is a driveway already in existence and used by the parties at the time the land is given. Now as to your second question. The laws of Ohio do not require heirs to erect a tombstone. It has been the policy of the law to let that matter rest with the desires of the heirs, except that where there is an administrator of the estate, such administrator has the discretion to put up such a monument as he should think proper. The administrator is not obliged to do this.

Are Guessing Contests Lottery Schemes

A. B., Pennsylvania, wishes to know whether or not these ordinary newspaper guessing contests come within the laws against lottery?

The determination of what are and what are not lotteries, has of recent years been subject of numerous judicial decisions. The status of a participant in such a scheme has not been so frequently decided. In the recent case of Stevens vs. The Cincinnati Times-Star, The Enquirer and the Tribune (1905, Ohio), 73 N. P. Rep. 1058, both questions came up for consideration. The newspapers concerned offered prizes to persons who should come nearest to guessing the number of votes to be cast for state officers in Ohio and Indiana in the election in the fall of 1902. Each participant was required to pay fifty cents for the privilege of making a guess. Before the election occurred, the plaintiff, one of the guessers conceiving the contest to be illegal, brought suit to recover back his fifty cents, and also alleged that he was one of a large number of persons similarly situated, each of whom had an interest in the fund accumulated from these fifty-cent payments, and that unless restrained the defendants would distribute the fund, leaving himself and his four hundred thousand fellow victims remediless, and asked that a receiver be appointed to take possession of the fund, ascertain the names of the parties lawfully entitled thereto and to distribute it among them. He invoked the statute, common to most codes that "when the question

is one of common or general interest to many persons, or when the parties are very numerous and it is impracticable to bring them all before the court, one or more may sue for the benefit of all." The court held the scheme to be a lottery, but that plaintiff could not bring suit for the other contestants and that the lower court, not having jurisdiction of his individual claim, properly dismissed the case.

Conveyance of Property Without Affecting Dower of Wife or Widow

W. C. T., Florida, writes: "A. owns forty acres, on which he resides. He is getting old, and desires that certain children inherit the same, but in the event of his dying first, and leaving a widow, he wishes said widow to retain therein her dower right. Can he legally make and sign before a justice of peace, under seal, a deed to them, stating in the deed that the wife don't sign it for the purpose of retaining her dower right therein? If such a deed is legal, each party owning an undivided interest, would the death of the widow before a division is made give a full and valid title to the entire forty acres to the children to whom the deed was made, or would her undivided interest pass to her heirs? The land belonged to A. before marriage. She is a second wife, with no children or other relatives except brothers."

Yes, the conveyance above made would be effective. If the wife did not sign the deed she would simply have reserved to her her dower rights in the property—that is, the right to use one third of the same for life. The parties to whom the real estate is conveyed would own an equal undivided interest, subject to the dower of the widow. Upon the widow's death this dower right would cease. I notice in the law of Florida a widow has her option to take either a dower interest or a child's part. This child's part I presume would be hers absolutely; but if the property was conveyed away before the husband died, there would be no child's part for the widow to take.

Right to Particular Number of Acres of Land

J. J. J., Georgia, writes: "J. owns land purchased twenty-seven years ago. J. at that time joined land on the north by D. He kept it twelve or more years. D. gave said land to his children three years ago, and children sold said land to L. No trouble as long as D. and children owned it. D. claimed his fence next to J. was the land line between, and was so for twenty-six years. As long as fence law lasted we kept up a lane between us, but agreed on his fence as the land line although the fence went down when stock law came about fifteen years ago. This year L. claims 99 acres, had his lines run and came over both fence rows, road, and six or seven feet in corn-field. Is it legal? What is the law in Georgia on it?"

If this matter is in court where all the facts will be brought out better than in a query of this kind, I would not risk my opinion in preference to that of the court trying the case. It will depend upon so many facts not stated in the query. As a general thing if a line fence is conceded or treated by the parties as the lines between them for a period of twenty-one years, it becomes in fact the line. There might be matters, however, which would not lead to this conclusion, dependent very largely upon the actions of the parties. The mere fact that the fence was removed would not make any difference if the place where it formerly was, was conceded to be the line. From the facts stated in the query, I would rather be of the opinion that the line became fixed where fence was located.

Liability of Railway

A. B., N. Y. asks: "If by reason of an agreement as to the valuation of an article he gets a reduced freight rate, if the article is lost or destroyed by negligence of the railroad company, will he be limited in his recovery for the loss of the article to the amount of the agreed valuation?"

I do not believe the courts are a unity upon their answers to the above query. There seems to be very good reason for holding that the railroad company would not be liable above the agreed valuation, and the reason for this is the fact of the agreement between the parties, and by reason of such agreement the owner accepted and received a reduced freight rate. However, in a recent decision, the Alabama Supreme Court, after very thorough examination of the law, comes to the conclusion that the railroad company would not be exempt from liability for the full price of the article where the loss occurs by reason of the negligence of the company, but as I said before, the courts are not uniform in their holdings on this question.



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Wit and Humor

Why the Lecture Ended

A certain professor was giving his pupils a lecture on "Scotland and the Scots." "These hardy men," he said, "think nothing of swimming across the Tay three times every morning before breakfast."

Suddenly a loud burst of laughter came from the center of the hall, and the professor, amazed at the idea of any one daring to interrupt him in the middle of his lecture, angrily asked the offender what he meant by such conduct.

"I was just thinking, sir," replied the lad, "that the poor Scotch chaps would find themselves on the wrong side for their clothes when they landed!"—Lippincott's.

Gratitude

When Blaine was a young lawyer, and cases were few, he was asked to defend a poverty-stricken tramp accused of stealing a watch. He pleaded with all the



GOING BACK A FEW YEARS

Mother—"Mercy, child, how do you get your hands so dirty? You never saw mine as dirty as that."

Child—"No, but I guess grandma did."

ardor at his command, drawing so pathetic a picture with such convincing energy that at the close of his argument the court was in tears, and even the tramp wept. The jury deliberated but a few minutes, and returned the verdict "not guilty." Then the tramp drew himself up, tears streaming down his face as he looked at the future "Plumed Knight," and said: "Sir, I have never heard so grand a plea. I have not cried before since I was a child. I have no money with which to reward you, but (drawing a package from the depths of his ragged clothes) here's that watch; take it and welcome."—Argonaut.

A Satisfactory Explanation

DISTRACTED MOTHER (at her daughter's wedding)—"Oh! oh! oh! What shall we do? The groom hasn't come, the guests are beginning to giggle and my daughter is in a faint!"

FRIEND OF THE FAMILY—"Calm yourself, madam. I saw the groom, only two hours ago, entering the Great Dry Goods Emporium at the corner. He said he had forgotten to get gloves."

(Suddenly breaking into smiles)—"Oh, then, it's all right. He's probably waiting for his change."—New York Weekly.

Friends

"That man is one of my friends," remarked the novice in public life.

"Which kind?" responded Senator Sorghum. "Friends, you know, are divided into two great classes—those whom you need and those who need you."—Washington Star.

Life's Little Courtesies

"Hang it all!" exclaimed Mr. Subbubs, arriving home from the office, "we'll have to call on the Dubleys to-night."

"Why, George, you said you wanted to stay home with me in comfort to-night," exclaimed his wife.

"Yes, but Dubley told Balklotz he and



AN INTERRUPTED PICNIC

Blindfolded Boy (playing blind-man's bluff)—"Now, see here, Jimmy Jones, if you're going to get rough, I won't play, that's all."

his wife meant to call on us to-night. We can leave their house earlier than we could make them leave ours."—Philadelphia Press.

"When a boy has a fight mother says, 'Did you get hurt?' Father says, 'Did you spoil your clothes?' Brother says, 'Did you lick him?'"—From a Cheerful Year Book.

Curious Advertisements

"Annual sale now on—don't go elsewhere to be cheated—come in here."

"Furnished apartments suitable for gentlemen with folding doors."

"Wanted—A room by two gentlemen about thirty feet long and twenty feet broad."

"Lost—A collie dog by a man on Saturday answering to Jim, with a brass collar around his neck and a muzzle."

"Wanted—By a respectable girl, her passage to New York; willing to take care of children and a good sailor."

"A boy who can open oysters with reference."

"Bulldog for sale; will eat anything; very fond of children."—Our Dumb Animals.

Matters Easily Arranged

"You owe me 80 francs and you never pay me. Do you suppose that I come here asking my dues every day?"

"Oh, no, just let me know what day is most convenient for you."

"Sunday."

"Very well. Come every Sunday."—Il Riso.

Always Silent

The food inspector's wife was looking over her husband's notebook.

"George," she said, "how do you pronounce the last syllable of this word 'but-terine'?"

"The last syllable," the inspector answered, "is always silent."—St. Louis Globe-Democrat.

George's Game

ANASTASIA—"Don't you play cards at all?"

INNOCENTIA—"No, but George says he is going to teach me after we're married."

ANASTASIA—"I suppose he'll teach you casino or euchre first."

INNOCENTIA—"No, he says there's a perfectly fascinating game called 'solitaire.'"—Catholic Standard.

New Possibilities of the Auto

BONES—"Why are you crawling under the machine? There's nothing the matter with it."

JONES—"I know it. But here comes



SISTER'S WEDDING

The Groom—"Help! I'm assassinated!" The Bride's Brother (as he throws the bag)—"I couldn't get the blamed string untied, so I was obliged to throw the whole thing."

Brown. If he sees me with this auto he'll expect me to pay him the money I owe him."—Detroit Free Press.

Humorous Note

The professional humorist was having his shoes shined.

"And is your father a bootblack, too?" he asked the boy.

"No, sir," replied the bootblack; "my father is a farmer."

"Ah!" said the professional humorist, reaching for his notebook. "He believes in making hay while the sun shines."—Topeka State Journal.

A Foxy Tenant

At one time there lived in Worcester, Massachusetts, an old negro who had a tremendous influence, religious and political, in that settlement. He occupied a little house owned by a prominent banker, but had successfully evaded the payment of rent for many years. No trouble came, however, until the banker was nominated to run for a political office. The next day the old negro came hobbling into his office.

"Well, Sam," said the banker, "I suppose you've come in to pay me some rent."

"Oh, no, boss," replied the old man. "I's just come in to say I's glad yo is nominated, an' will tell de res' of dese no 'count niggers to vote fo' yo, an' to mention to yo at de same time dat de roof of my house is a-leakin', an' if it ain't fixed I'll have to move out directly."—Lippincott's.

Doolittle's Trained Hens

WELL, boys, what d'ye s'pose Pete Doolittle has been up to now?" demanded Job Blinkers, as he dropped into his accustomed seat and filled up the circle around the post-office stove, now utilized chiefly as a rest for the feet.

"I dunno, but I'll bet it ain't anything in the line of work—not if Pete attended to it hisself," spoke up one of the crowd.

"Guess you're right about that," rejoined Blinkers. "Doolittle never was very fond of work. And that new dodge he was up to last fall was what one might expect from a man of that kind. He has a good-sized huckleberry-patch, you know, and I'm dinged if Doolittle hasn't trained his hens to pick the berries."

"Now, how do you s'pose he manages it? Why, he simply puts a rubber band around their necks just tight enough to



prevent them from swallowin' the huckleberries, an' yet not tight enough to hurt them. Then he has a sort of contrivance like an old-fashioned goose-yoke hung to the neck of each hen; an' fastened to the lower end of each yoke is a light wooden pail to hold the berries. Doolittle's huckleberries are of the low-bush variety, an' the hens have no trouble at all in reachin' the berries.

"I was over to his place for an hour or so last fall watchin' the hens work, an' it was a sight calkulated to do a lazy man a heap of good. Doolittle seemed to be enjoyin' it fust-rate—fer him. There he was, perched upon the fence, smokin' his pipe an' takin' things easy, while the hens were bucklin' right down to business an' snatchin' the berries off the bushes just as if they expected to git paid fer it. They seemed to know the ripe berries from the green ones, too. Anyhow, I didn't see 'em pick any green ones, except once in awhile a hen would get hold of one by mistake, and then she would drop it on the ground instead of into the pail, an' go on workin' as if nothin' had happened."

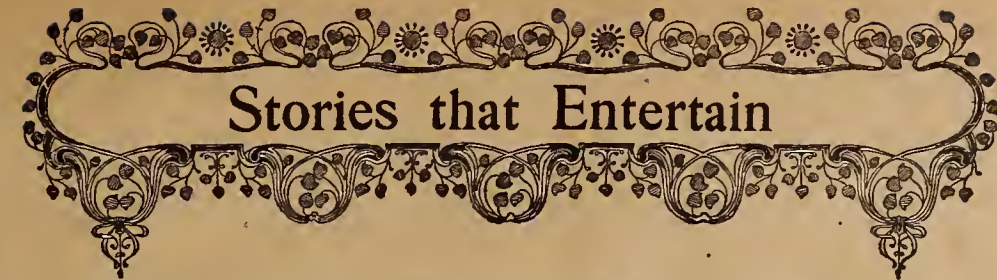
"As fast as the hens got their pails filled they would come over to the spot where Doolittle was settin', an' cluck, to let him know they were ready to be unloaded; an' then he would get down from the fence an' empty the berries out into a big basket, an' start the hens off to pickin' ag'in. I told Doolittle his plan fer gatherin' the huckleberry crop was the best I'd run across yet, an' he sighed kinder tired-like, an' said:

"Yes, it is purty slick, but there's one drawback to it."

"What's that?" says I.

"Why, ye see, I've got to climb down off the fence every fifteen minutes or so to empty the pails, an' I tell you it's wearin' on the constitution to keep it up all day. Now, if the hens knew how to turn a summerset, same as them limber-j'inted chaps in a circus, I'd be all right. Then all I'd have to do would be to have a good-size box standin' in a handy place to empty the berries in, an' the end of a plank a-restin' on one side of it, with the other end a-restin' on the ground, so the hens could walk up to the top of it when they got their pails filled, an' turn a summerset across the box, dumpin' the berries into it, an' then light on their feet on the other side, an' go on about their business of pickin' berries. If that could be done, as I said before, I'd be all right. But, Doolittle sighed once more, 'the worst of it is, a hen can't be trained to turn a summerset.'"

"An' when I come away Doolittle was



Stories that Entertain

still settin' there tryin' to figger out some plan fer emptyin' them pails of berries without gettin' down off the fence.

WILL S. GIDLEY.

A Wonderful Ruse

The late A. M. Simpson, the oldest Odd Fellow in the world, had the following experience at a New York theater some years ago:

In those days women weren't compelled to take their hats off in the theater. Consequently a good many kept their hats on, and the people behind saw nothing of the stage. Mr. Simpson sat in his orchestra chair, enjoying the play famously, when a woman in a two-foot hat plumped down in the seat in front of him. He sighed. He sat, so to speak, on tiptoe. He craned his neck to the right and to the left. But in vain. Now that this woman had come, he could see nothing of the stage. He saw only two black ostrich plumes, a bunch of grapes, a humming bird, and a bow of pink satin ribbon.

Mr. Simpson was a modest man. It was not his nature to disturb any one. Nevertheless, he did not often get to a New York theater, and now that he was in one, he did not propose to miss its benefits through no fault of his own. So, after a good deal of silent suffering and a good deal of bashful hesitation, he leaned forward, touched the woman in front of him, and said in the politest tone:

"Madam, will you kindly take off your hat?"

The woman ignored him—ignored him absolutely. He said a little more loudly:

"Will you please take off that big hat, madam? I can see nothing behind it."

She turned, gave him a scornful, withering look, and settled back into her former position.

"Madam," said Mr. Simpson very firmly, "if you do not remove that hat, something most unpleasant will happen."

She ignored him again.

Mr. Simpson reached down under the seat, got his hat, and put it on. Instantly, from all parts of the house, there came a loud and ferocious chorus:

"Here, take off that hat!"

"Hats off!"

"Hats off down front!"

"Take off your hat!"

"Off with your hat! Off with it!"

The woman removed her hat instantly. At the same moment Mr. Simpson, chuckling, removed his own. Then the uproar ceased.—Charles S. Gerlach, in Lippincott's.

Washington and Lafayette as Paper-hangers

The New York "Tribune" quotes from a volume on "Old Time Wall Papers," just published by Clifford and Lawton, New York, an anecdote showing forth the "Father of his Country" in an unusual light.

Miss Kate Sanborn, the author, referring to the fact that the paper-hanger was regarded as almost a needless luxury in early American days, and that "the family often joined in the task of making the paste, cutting the paper, and placing it on the walls," states that it was not even beneath the dignity of George Washington to engage in this homely work of interior decoration. She writes:

"The story goes that the good Martha lamented, in the presence of Lafayette, that she would be unable to get the new paper hung in the banquet room in time for the morrow's ball in honor of the young marquis; there were no men to be found for such work. Lafayette at once pointed out to Mistress Washington that she had three able-bodied men at her service—General Washington, Lafayette himself, and his aide-de-camp. Whereupon the company fell immediately to work and the paper was hung in time for the ball."

Japanese Hot Weather

Mr. Sato, of the Japanese Peace Commission, praised the cool and stimulating weather at Portsmouth, and was told that in St. Louis the summer weather was quite unbearable.

"We have hot summers in Japan," said Mr. Sato. "We have hot-weather stories there, too. For instance:

"A philanthropic Japanese rode through the streets one scorching day, when a beggar woman accosted him, holding a baby in her arms.

"Kind sir," she said, "will you not give

a copper coin to your servant, who is in sore need?"

"Yes, gladly," said the gentleman, and he took out a handful of small change.

"But just as he was about to give this to the woman, he chanced to look closely at her baby, and behold, it was only a great doll.

"Why," he cried, "that baby is a fraud, a sham."

"Yes, your honor," said the woman humbly. "It was so hot I left the real one home to-day."—Sabbath Recorder.

The Financial Vampire

A fool there was, and he bought some stock,

(Even as you and I!)

He was told it was strong as eternal rock

(We called him a lamb of the newest flock);

But the fool he bought an enormous block

(Even as you and I!)

Oh, the risks we take and the deals we make,

And the spoils of our head and hand

Belong to the Magnate who knew too much

(And now we know that he knew too much),

But we didn't understand.

A fool there was, and his stock he sold

(Even as you and I!)

And then, with a bound it upward rolled

At the word of the Magnate who controlled,

But the fool was scared and his feet got cold.

(Even as you and I!)

Oh, the toil we lost and spoil we lost,

And the excellent gains we planned

Belong to the Magnate who knew too much

(And now we know that he knew too much),

But we didn't understand.

A fool there was, and his stock he held

(Even as you and I!)

And the price went down like a tree

That's felled

(Yet somehow the Magnate's surplus swelled),

But Ruin for that same fool was spelled.

(Even as you and I!)

And it isn't the dross and it isn't the loss

That stings like a red-hot brand.

It's coming to know that we don't know much

(Seeing at last we can never know much)

And never can understand.

—Van Norden's Magazine.

The "Gonfalon's" Proofreader

SCENE. Editorial-rooms of the "Gonfalon," a monthly magazine issued by the seniors of Goldsmith University. CHARACTERS—JERRY STUBBS, a senior; tall, red-haired and freckled. MAY DUVAL, a senior; blonde, petite and pretty. JERRY writing busily at a desk; MAY correcting proofs at a table.

MAY (throws down proofs, walks to windows, boxes to some one outside). Oh, Jerry, look here! See what a lovely great bunch of roses Sarah Carroll has on! I wonder who gave them to her.

JERRY (without looking up)... I don't know. I didn't.

MAY (laughing). No, I never supposed you did; for though physically you are ridiculously tall, you are always financially hopelessly short. By the way, Jerry, I heard that you had asked Sarah Carroll for the refusal of her hand, and got it—the refusal, I mean.

JERRY. Nonsense! I never cared anything for Miss Carroll, nor gave her a passing thought, except to admire her brilliant scholarship. She has led her Greek class all this term, and I never saw her equal in ancient history.

MAY. Humph! Easy enough for her to know ancient history! All she has to do is to read up her old diaries.

JERRY (turning back to desk). I won't listen to such a goose.

MAY (sweetly). I will then. What was it you were about to say?

JERRY (bites his lips, then laughs and turns around). Will you go to the senior promenade with me?

MAY. Thank you, Jerry, but I've already promised to go with some one else.

JERRY. Do you mind telling me who?

MAY. Certainly not. It is Jack Jerome.

JERRY. That conceited young Dogberry, self-conscious of everything except his self-consciousness! Bah! The very sight of him makes me sick!

MAY. Let me remind you that the "conceited young Dogberry" stood a good deal higher in the last exams than the meek and humble Jerry Stubbs. Now call up a little smile and I'll pin one of these violets on your coat.

JERRY. May, do listen to me soberly for a minute. Jack Jerome has told several of the fellows that he is engaged. He is a dishonorable cur to flirt with you so desperately if that is the case. Have you heard it?

MAY. Oh, yes; I've known it for some time. To change the subject, here are the proofs. I'm going home now to get ready for a horseback ride with Jack.

(Knock at door. Enter boy with proofs.)

JERRY. The first form of the new number. (Begins to examine pages, then gives a long whistle.) What was supposed to be the title of Jack Jerome's poem?

MAY. "A Feast With the Muses." Why? (Jerry points to the line. She reads.) "A Feast With the MULES!" Oh, horrors! And that beautiful poem, too! (Begins to cry.) What can be done?

JERRY. You're the proofreader; why didn't you see it in time?

MAY. I read those last proofs so hurriedly, but I don't understand how I could have overlooked that. (Wipes her eyes.)

Jerry dear, you will have it changed, won't you? It is so ridiculous, and the poem is such a lovely one.

JERRY (grimly). Of course, you know that the whole edition is probably printed, but I'll see what I can do. (Goes to the telephone.) Give me the Star Printing Office. Hello! Call the foreman, please.

Say, Jimmie, have you run off the whole edition of the Gonfalon? Have, eh? Well, there's a mistake that has got to be changed. First line, page 200, change Mules to Muses, M-u-s-e-s. Sell the waste paper, and charge up the new stock to me. I'm Stubbs, Jerry Stubbs. That's all; good-by. (To May.) What are you crying about now?

MAY. Because you are so good. That'll cost you a lot, won't it?

JERRY. No use denying it, little girl, for we used supercalendered paper this month. But then the "beautiful poem" won't be spoiled.

MAY. Oh, then you do like Jack, after all, and it's only because he belongs to a rival fraternity that you say nasty things about him!

JERRY. Um! Oh, yes! But speaking of proofreading, there have been so many mistakes lately, and we're getting such a lot of grinds about it from our exchanges, that I've filed some to call your attention to.

MAY. It makes things smaller to file them, doesn't it? Wait a while and they'll soon be too small to notice. I don't want to see the mistakes. I told you when the class elected me proofreader that I never could be accurate, but you promised to oversee my work and exercise patience.

JERRY. Great Scott! I think you exercise it for me all it needs. Well, go on



and get ready for your ride with Jack. It is my duty, though, to tell you that there is a heartache in store if you keep up this flirtation much longer. Consider the girl's feelings.

MAY. Nonsense! If the girl isn't smart enough to look out for herself it's no fault of mine. (Puts on jacket and hat.) Good-by.

JERRY. Good-by.

MAY (shuts door, then opens it and looks in). By the way, Jerry, the girl Jack is engaged to is myself.

—Adele Barney-Wilson.

The Strange Adventures of Helen Mortimer

[CONTINUED FROM PAGE 19]

here in Paris. He was most sympathetic, and said:

"I had no idea you were a bread winner, but I knew from the beginning you had more in you than most of the women it has been my misfortune to meet. I admired you before, but now I admire you ten times more." And I said:

"I don't see why you should. There is nothing so very admirable in accepting a lot one is thrust into, with no alternative." "Ah, but that, my dear friend, is the very beauty of it, that you see no alternative."

"This was beyond me, but I didn't want him to see my stupidity, or think I was pondering over the idea that he might be alluding to marriage as the alternative, so I said quickly, 'Oh, you mustn't think I am posing as a saint, for I am far from one. I should probably have lived on my relations without the slightest qualm of self-contempt, if I had had any to live upon.'"

"He glanced at me curiously, and said, 'I don't think you are a saint, because saints don't develop at such a tender age; but I believe you are a good deal of a Puritan at heart, aren't you?'"

"No," I returned laughing, "I fear I'm not; a Puritan would become more easily reconciled to conditions than I do. I fight against them, and grow really wicked when they oppose me!"

"I caught his eyes fixed on me with a gleam of suppressed laughter, and was suddenly appalled by the fact that I was talking in a sort of reckless childish way, that must have appeared most silly to a man of the world as he is; and, feeling myself blush furiously, I turned away, pretending to be interested in a carriage passing on the other side."

"What you want is happiness," he said quite gravely. "You were born to be happy, and it is as unnatural for you to exist without it as for a bird to be shut up in a cage."

"Yes, that is so," I returned. "I feel so bad when I am unhappy."

"He laughed, and said, 'That old woman's saying, "Be good and you'll be happy," is obsolete! It belongs to the age when women hoed the ground and sowed potatoes, and their sins consisted of stealing other people's crops to feed their hungry children, instead of raising things themselves, which, of course, got them into no end of trouble. But nowadays there isn't any of that rural peace, every one must fight his and her way against insurmountable competition, and I tell you it is a mighty hard struggle for the women. I simply marvel at them! Why, I have seen lovely young girls drudging their lives out at some menial labor which barely brought them in enough to keep body and soul together, and denied them all the delights of life, until they are too old to enjoy them. It is a horrible condition!'"

"But what would you have them do?" I asked. "They have to accept what they can get."

"Of course, but some of them are so foolish they refuse what little amusements come their way, through a false idea of propriety;—that's where the crime is! It is all very admirable for a girl to wish to be independent, but it is sheer idiocy for her to sacrifice her youth and beauty from fear of the world's judgment. What does the world do for her? The people whose opinion she values would see her retire to the almshouse without a protest!"

"I felt the truth of this, yet it seemed rather strange he should discuss such a subject with me, and I thought it unwise to agree with him, although, in my heart, I think I do."

"After waiting to see if I should reply, he continued in the same strain with evident sincerity of feeling, and presently I asked, 'What would you have, a lawless community?'"

"I should like a little more breadth of view, to see Nature have more free play. There is too much hypocrisy and nonsensical prejudice in life. Look at these women in Paris! There isn't a line in their faces; they preserve their youth in happiness, and they do no harm to any one. Look at that one there in the victoria. She is probably forty and looks twenty-five."

"Of course! She has money!" I replied. "She doesn't have to worry how she is to pay her board."

"Has money!" he exclaimed, then looked at me curiously and laughed. I suppose he thinks the lack of money is mere bagatelle, having never known it, so I said, 'Yes, money; it may mean nothing to you, but if you had ever been without it, you would understand how one is aged and embittered by not having it.'"

"Oh, I know its worth," he replied gravely, "but you don't understand. What I mean is this: there are some people who quite undeservedly perhaps, like myself, have been endowed with a superabundance of wealth, and the only real pleasure we can get out of it is by making those who haven't it enjoy themselves; but there are certain foolish social laws that make it difficult to do so."

"I was surprised at this, for I have always believed him to be rather a selfish man, who seldom gave a thought to others, and I told him so. He replied that he was sorry I had such an unflattering opinion of him, and wished I would give him a chance to prove, even in a small way, how unjust it was."

"While I am here in Paris I should like to give you a good time," he continued, "and if you will allow me, I shall. We know one another well enough now; will you?"

"Certainly," I returned. "I am not aiming to avoid pleasure, and I shall appreciate it very much."

"Then will you dine with me to-night? We shall go to the Café de Paris, the most interesting place in town, and we shall have a little dinner "à deux," and see the smart set of the capital."

"Of course, I was delighted, and my only misgiving was whether or not Madame D. would approve, for they are so strict here in France."

"But surely she is not your guardian is she?" he asked, when I mentioned this. "Because you are acting as her amanuensis, she certainly cannot expect to control your life out of duty hours."

"But you see I am stopping with her," I returned; "besides it wouldn't be the correct thing to do, even in New York, unless there were a chaperone."

"Lawson sat back wearily, and said, 'You see! I told you you wouldn't let me amuse you! Here you are in a foreign country where you know no one, and yet you hesitate to accept a little innocent amusement! Who will know anything about it? You can easily make out to Madame Durozzi, that I am an old friend, and she will countenance it as an American custom. They expect American girls to be a little independent over here, and think nothing of it. Why, it's sheer nonsense! If you want to see Paris, here I am ready to take you about, and you hesitate from unreasonable prudishness.'"

"Can't you get some married woman to go, too?" I asked.

"No, that would spoil everything. I don't know any one here, and to have a stranger tagging on would take all the enjoyment out of it. Now be sensible and arrange it; I shall come for you at seven-thirty, and after dinner we shall have a peep at the Folies Bergère, or the Olympia."

"Well, I asked Madame D. when I got home, and she said, 'Bien! if he is an American friend of yours, it is probably all right, but I should not advise you to do so with a Frenchman, and I should like you to be back before twelve.'"

"So, my dears, I went and I had the time of my life! The Café de Paris is fascinating; continuous music, and patronized by

the most interesting class of people in Paris. I never saw such beautifully gowned women, or so many good looking men. Every woman had two or three men with her. There was one woman, an actress, I think, who is known as the 'Swan.' She was very tall and beautiful, and dressed entirely in white,—the most exquisite embroidered crêpe de chine, made princess, and fitting like a glove. The only jewels she wore was a string of diamonds that reached to her knees! I couldn't believe they were real, although they looked it; but Lawson said he knew positively they were; and then, what do you think he said? 'You ought to have a string like that; they would be more becoming to you than to her. She is too old; her eyes are dim, but yours would match the stones.'"

"Imagine! I laughed and said, 'Well I don't think there is much likelihood that I shall ever have a chance to prove if they would or not!' We got home a little after eleven o'clock."

"So here endeth my first day in real Paris! He is coming to take me in the motor again to-morrow afternoon, and we are to dine at Paillard's! He is really awfully nice, and seems to take so much pleasure in giving me enjoyment, which I think shows he has a generous nature, don't you?"

"I must say, although he does not appeal to me quite in the same way Halifax did, I can understand perfectly why he is such a favorite with women."

"Thursday."

"These past four days I have not had one moment to write, my dears; so I shall now try to remember everything. The mornings passed as usual, and each afternoon Lawson came for me in his Panard, and we dined together every evening. To-day it began to rain just after we started, so he took me to tea at the Palais hotel on the Champs Elysées. The place was crowded and we sat at a little round table for two mortal hours sipping tea, watching the throngs of people who came in, and listening to the Italian musicians singing Neapolitan songs and playing most beautifully on mandolins and guitars. I made comments on the peo-

ple that kept Lawson laughing the entire time, and he really seemed to enjoy himself as much as I did in spite of the blasé air he has at times."

"The following day we went in the motor again, but instead of going to the Bois, flew down the avenue to the Rue de la Paix where all the most fashionable shops are; and what do you think! Lawson said the next day was to be his birthday, and he wanted to make it a day of rejoicing for us both, and asked me to plan it out. I told him that as he had made every day that week glorious for me, I should rather he planned it, but to remember I could only be free after five o'clock. He asked if I could not beg for a day off by pretending it was my own birthday, but I said I was not willing to fib about it, and even if it were my birthday, Madame D. could not possibly do without me."

"All right," he returned, "we shall do all we can this afternoon and evening, and to-morrow, and make it up by spending Sunday at St. Cloud. Would you like that?"

"Of course I was delighted with the idea, for I don't believe I should ever have the courage to go out there alone, although one can go on the Seine boats for a few sous; but the prospect of going in the motor was much more attractive, and I really enjoy very much being with Lawson now, we get on splendidly."

"Well, my dears, we stopped at the opera house and he bought two of the best seats for the following evening, to hear Faust, my favorite opera! I was overwhelmed with delight, and told him so; but he only laughed, and said, 'This is but the beginning. We are going to finish up this week to perfection! To-night I am unfortunately engaged to dine with some friends, but Saturday and Sunday shall be ours.'"

"I don't know whether I am getting spoiled or not, but I felt a little pang of resentment when I heard he was not to be with me that evening, and I showed it, I fear, by questioning him about his friends, which seemed to highly amuse him."

"There is to be only one woman in the party," he said, "and she couldn't hold a candle to you."

"I didn't suppose there would be two women," I returned, "and she has proved her superiority by taking you from me." I said it merely as badinage, but he understood it as jealousy, and as it seemed to please him to understand it so, I played up to it, hoping he would be influenced to give up his engagement, and stay with me. But after we had discussed it some time, he explained it was to be a dinner given by a man friend who had just been married, and he was to be the only guest, so he could not possibly get out of it."

"But as to-morrow is my birthday," he added, "I am going to get you a little trinket as a memento, and you can wear it to the opera to brighten up your gown."

[TO BE CONTINUED NEXT ISSUE]

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The Farmer in the Carolinas

[CONTINUED FROM PAGE 15]

painted farmhouses as he does in some other sections of our country, but the "new era" farmers in this territory have nevertheless made a creditable beginning in providing their families with home comforts. Here and there may be seen houses and barns that average well with similar structures in any part of the North, and comparison of these habitations with the crude shacks they have supplanted, and which are in many instances yet standing near by, affords the most convincing possible evidence of how wonderful are the strides being made by this portion of the transformed Southland."

Both the Carolinas are traversed by the three great North-to-South systems of railroads, and have water-transportation facilities in addition, so that there is not room for much complaint on this score. The country roads are also much better than are to be found in some richer and more populous states. Some of the highways are of granite macadam, and cost as much as \$3,000 per mile, but sand and clay roads costing \$400 per mile are more common. Convict labor is extensively used in this road building. With good roads provided there has been little difficulty in securing the inauguration of the rural free delivery of mail wherever the population justifies it."

No mention of farming interests in the Carolinas would be complete without passing reference to the immense model farm, Biltmore, which George W. Vanderbilt conducts near the city of Asheville, North Carolina. Mr. Vanderbilt has gone in extensively for stock raising and dairying, and thanks to his employment of practical men has made his ten-thousand-acre estate a paying proposition. His poultry yards, as well as his barns and dairy, are models, and his herd of imported Jerseys is one of the most valuable on this side of the Atlantic."

Similarly in any discussion of the agricultural possibilities of this section of the country a word must be said regarding the success which has attended the cultivation of tea in South Carolina. Through the instrumentality of the United States Department of Agriculture a tea plantation of more than 700 acres was established a few years ago at Pinchurst, South Carolina, and the outcome shows that tea-growing may be made profitable here. It has been demonstrated that 400 pounds of tea can be counted upon as an average yield per acre, and this sells at a minimum of fifteen cents per pound. Moreover, there is being produced in South Carolina tea that is declared by experts to be vastly superior to the black tea imported from the Orient. Colored children are employed as pickers, and thus the Carolina tea plantation is able to compete with the low-priced labor of the Far East."



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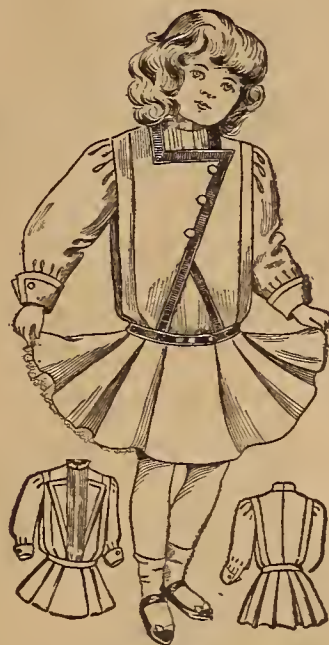


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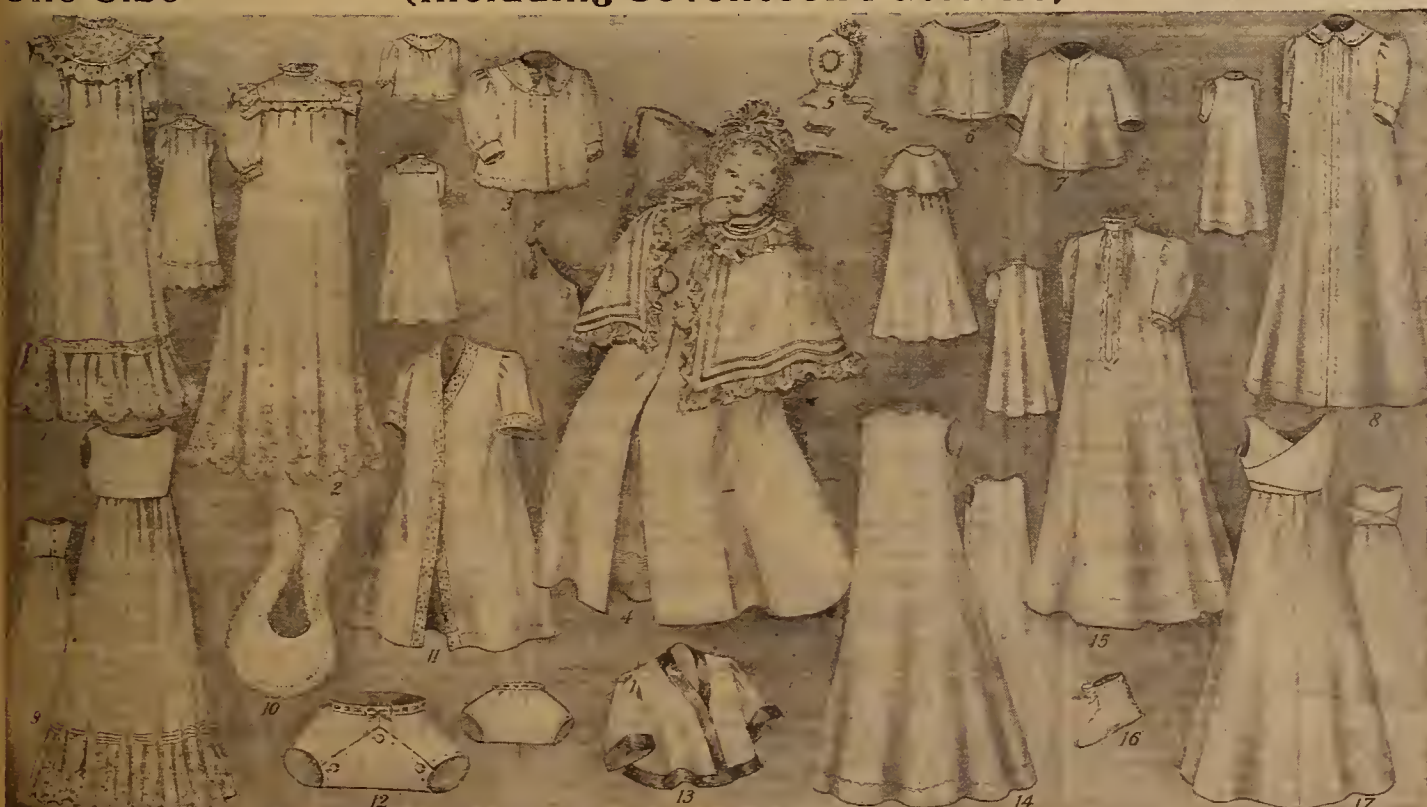
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Agricultural News-Notes

Nearly twenty million acres were planted in cotton in India this year, the increased acreage over last year being nearly two millions.

The peanut crop of the United States now amounts to eleven million bushels, yielding to the producers a total of from eight to ten million dollars.

Seven years ago the value of the sugar-beet crop was estimated at seven million dollars. The past year's crop is about five times as great.

Of the seven million barrels of flour exported from the Pacific Coast in 1905, Japan bought one third, China one fourth, Siberia one eighth and South America one tenth.

The raising of sheep for mutton is the order of the day at present except in the range sections west of the Mississippi, where the production of Merino fleeces is more desirable.

Although this year's corn crop is the greatest ever harvested, the consumption in the United States has been so much increased that the export movement shows no material increase.

In North Dakota there yet remains over four million acres and in Minnesota over two and one half million acres of land which is now open for entry by homeseekers.

The wholesale price of cranberries, per bushel of forty pounds, paid to the producer during the past three years has been one dollar and fifty-five cents. The total yearly average production in 1903, 1904 and 1905 was 996,666 bushels.

A law recently enacted in Iowa provides that the official weight of a dozen of eggs in that state shall be twenty-four ounces, or one and one half pounds. Why not sell by the pound, since it costs relatively less to produce small eggs than large ones.

The Secretary of Agriculture in his recent annual report strongly recommends the establishment of agricultural high schools in the various states. To be of the greatest service these should be located on or near demonstration farms.

There are 72,172 alcohol distilleries in Germany, of which 57,635 are small ones on farms for the utilization of perishable products or those of little value at current market prices. Farmers should have a fair show in the home production of alcohol for illuminating, power-producing or other purposes.

It is highly complimentary to the farmers in the United States that the present efficient Secretary of Agriculture is now the senior member in the President's cabinet. Secretary Wilson entered the cabinet of President McKinley, and has been wisely continued in that of President Roosevelt, where he reflects much honor on the great industry he represents.

Tasmania, which is but a trifle larger than South Carolina, is situated south of Australia. It exports large quantities of apples to Great Britain. A co-operative plan of selling is being followed, whereby the fruit is sent in gradual consignments, so that the market is not glutted and the highest prices are obtained. Apple orchards in full bearing are valued at four hundred and eighty-five to seven hundred and thirty dollars an acre, an average crop being about four hundred bushels to the acre. The usual price in the orchards is forty-eight to fifty-four cents a bushel.

Conditions in Ireland

[CONTINUED FROM PAGE 13]

the time of the accident was equally responsible. He argued that if the other fellow had not ducked his head when the stone was thrown, the window would not have been broken. The upshot of this contention was that the other belligerent finally agreed to pay half of the damages. Thus the wily lawyer saved his client half of what he otherwise would have had to pay.

One of the favorite sports of the country people at county fairs in Ireland is the pig race. This event is pulled off by starting two half-starved pigs and allowing them to run by smell to a place where a bunch of turnips and a platter of oatmeal porridge is placed for them. The famished little porkers are allowed to smell the food, then gradually backed away from it, with the smell in their nostrils. Naturally they squeal and kick for a start, and run for dear life when they are released. Considerable sums of money are always won and lost on these unique contests.

A Common-Sense Talk On Manure Spreaders

I. H. C. Corn King and Cloverleaf Spreaders

THERE'S no doubt that the right kind of manure spreader is a good thing for you to have. It is probably true that there is no other farm machine that, if rightly chosen, is as valuable to the farmer. If manure is spread properly and at the right time, its money value far exceeds what you're apt to think.

But when you buy a manure spreader have a care. There are many of them on the market, and many with various "special features"—fancy affairs that do them more harm than good.

When you buy a spreader look out for these things—and avoid them. What is chiefly to be desired is *strength and simplicity of construction*.

Strength is essential because a manure spreader has to carry a heavy load and the rear end—the *machine end*—has hard work to do.

Simplicity of construction lessens the chance of the machine getting out of order and gives *light draft*. You know there are a good many manure spreaders that don't get out of the shed after the first year. They make too much trouble and cause too much delay.

are strong and simple. The frame is carefully-selected, well-seasoned lumber, and is strengthened by heavy cross sills and truss rods. They have steel wheels with staggered spokes, and both hind wheels have clutches. The box is made of selected stock and is securely fastened to the frame by heavy steel cleats. Corners are re-enforced with steel plates. Everything is of the very best.

Both of the rear wheels are drivers, and insure plenty of power. A large sprocket with heavy chain drive transmits the power to the cylinder. The cylinder is large and strong, and the square teeth (extra long) are made of the best high carbon steel.

The power for driving the apron is applied on both sides, giving an even movement and making binding impossible. The rollers are attached to the under side of the slats instead of to the frame.

The vibrating rake is a most important feature, and is found only on Corn King and Cloverleaf spreaders. It levels the load and brings the manure squarely up to the cylinder—a thing which is absolutely essential to

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And as a result of simple construction, the operation is simple. Any one who can drive a wagon can operate an I. H. C. spreader, for one lever does it all. There are ten feeds, ranging from ten to thirty loads per acre. The apron stops of its own accord when the load is all fed out. By reversing the lever it returns and again stops when back in position. No need to watch it at all.

These are some of the reasons why you should investigate I. H. C. Corn King and Cloverleaf spreaders before you buy. There are many other good points about them that are explained in our catalogues. There are two kinds—Cloverleaf, an Endless Apron machine, and Corn King, a Return Apron machine; each made in three sizes.

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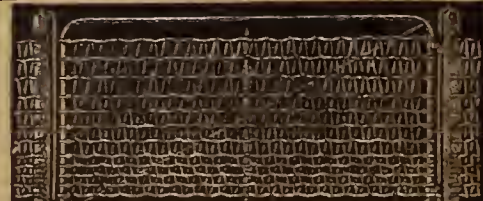
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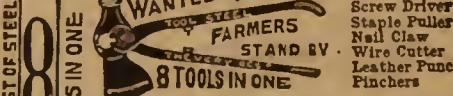
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PROF. E. P. WALLS

THE breeding of animals for the purpose of improvement constitutes a science that is almost unlimited in its intricacies, and furnishes a field where the energetic worker may always feel that he has something to work for, and that which is

attainable. The names of Warfield, Miles, and Sanders will always stand out as peers in this vast science, and it is to these tireless workers and investigators that we owe much of our knowledge of the present day.

The purpose of this article is to call attention to some of the most important points that must be considered in successful breeding, with a brief discussion of each, hoping that breeders may be benefited thereby. No theories are advocated, but only undoubted facts, that have been proved by practical experience, are dealt with. The art of breeding domesticated animals has been practised from the earliest times, and in view of the fact that "like generally produces like," the earliest breeders soon established the rule of "breeding from the best." But these early breeders, like many of the present day, had no fixed type or standard, and their idea of what was the best was constantly changing.

Robert Bakewell, of Leicestershire, England, about the middle of the eighteenth century, was the first to inaugurate this new system of a fixed standard. He had his idea of what constituted a perfect animal, and kept it constantly in view, practising a rigid selection and eliminating all animals for breeding purposes that did not correspond with his ideal. As a proof of the success of the Bakewell method, we now have a number of improved breeds of remarkable excellence, each suited to some special condition or purpose. An animal which furnishes the largest amount of the desired animal product for a given amount of food consumed is, however, the most desirable.

The repair of the organism is made at the expense of the food the animal eats. Therefore, the more food consumed, the more there will be left for the growth of the parts after the repairs are made. The object of the art of breeding is the improvement of animals in those qualities that have a definite value, as the production of meat, milk, wool or labor. It is undoubtedly easier to secure an extraordinary development in a single characteristic than to obtain the same degree of excellence in two or more at the same time, for when the entire energies of the system are acting in a single direction, there is no residuum of force for development of other qualities, which are not correlated with the one that is made dominant. For this reason it is almost impossible to obtain a good "general purpose animal."

The inheritance by the offspring of the characters of the parents, at the time of procreation, has been generally accepted as a law of animal organization. Although there are many apparent exceptions to this law, careful examination shows that it is not only constant in its action, but extends to every feature of the organization, and that the supposed exceptions are only the result of the influences of other laws, which obscure the hereditary tendency for the time being, without wholly suppressing it. Nor is this resemblance of offspring to parents confined

Some Suggestions Regarding Stock Breeding

By E. P. Walls, M.S., Formerly of the Maryland Agricultural Experiment Station

to the external characteristics, but also extends to the internal structure and functions of the system. The Jews and Gypsies may be cited as illustrations of the hereditary transmission of the peculiarities of a race, as they do not intermarry with other families and their distinguishing characteristics have remained the same for centuries.

Among the normal characters most likely to be inherited, we might mention the following: The nervous system, mental condition, organs of nutrition and reproduction, habits, predispositions, temperament, bones, muscles, and power of endurance. Any peculiar development of these several points, characteristic of the parent, are produced in the offspring without essential change. Muscular strength and power of endurance are transmitted generation after generation in certain families. As one instance of this, it might be mentioned that the greater number of American trotting horses trace back to Messenger. There are also families of people, who, on account of peculiar structure of the vocal organs, possess what

siderable length of time may elapse before any indications of its presence are observed. In the latter case a predisposition to the disease is inherited. There are certain diseases that are transmitted with greater uniformity than others, yet a predisposition to almost every known form of disease is likely to become hereditary, even if the influence that determines its transmission is not sufficiently intense to render it congenital. Some diseases, such as scrofula, may assume several different forms, and may occur in the offspring in a different form to that present in the parent. The influence of diminished fecundity in young mothers upon their offspring, which necessarily inherit the same peculiarity, would tend to predispose to barrenness and sterility in the breed or family in which early breeding is frequently practised, while the defect of the mother arising from the same cause would become a constitutional peculiarity in the offspring.

The habits and characteristics of animals, which have been developed by the conditions in which they are placed or the

cestor, more or less remote, may make its appearance in the offspring without having been observed in the parents. This form of heredity is called atavism, reversion, throwing back, crying back, breeding back.

This tendency is most frequently made manifest when breeds, widely differing in their present forms, are crossed upon each other. In such cases—the so-called "violent crosses"—it frequently happens that the progeny resembles neither parent, but shows strong marks of the type from which both of its ancestors originally sprung. For those who desire to study the question more carefully, I refer to Darwin's "Variations of Animals and Plants Under Domestication," Vol. I, pp. 163 to 272, which gives an account of his work in the breeding of pigeons, with a full history of the various breeds, their processes of formation, and the effects of selection and crossing of breeds. This tendency to reversion in different breeds of domestic animals when crossed accounts for many of the disappointments which breeders experience in their efforts to improve their stock, and serves greatly to complicate the breeding problem. The phenomenon of atavism seems to show that we cannot set a limit to the inheritance of characters, and the internal characteristics may be inherited as well as the external. In this connection the importance of securing a full record of the pedigrees of breeding animals will be readily seen, as a means of tracing the history of ancestors for the purpose of determining the characters that are liable to be transmitted by atavistic descent.

Any peculiarity in the development of one organ or set of organs is usually accompanied by a corresponding modification or suppression of organs belonging to some other part of the system. The correlated structure of animals enables the comparative anatomist to determine the class or order to which an animal belongs from a single tooth or fragment of bone. It is said that color blindness is frequently accompanied by a defective musical ear. The sense of smell in some blind persons is so acute that they can detect the entrance of a stranger.

A deficiency in the production of milk is nearly always found in animals that have a tendency to fatten, in accordance with this great law of correlation, and an equilibrium of the organization can only be obtained by an arrangement of its elements in strict coincidence with this law. Any modification of a single character may, therefore, involve corresponding changes in other parts of the system and a consequent rearrangement of the dominant characteristics. When the balance of the system is in this manner disturbed it is difficult to determine the extent of the change that may follow, as it may result in transposing the latent and dominant characters, and develop in the offspring resemblance to some remote ancestor, which may or may not be desirable. Work gradually toward the type of animal you wish to obtain, avoid sudden changes in type of breeding animals, and you will find it much easier to obtain the desired product in the end. All animals are endowed with a flexibility or plasticity of the organization that enables them to adapt themselves to the conditions in which they are placed. As a result of favorable conditions we recognize improvement, while deterioration and loss of valuable characteristics is the result of unfavorable conditions. Variation is greater in domesticated than in wild animals.

The distinguishing characteristics of the various breeds have been produced by the modifying influences that prevail in localities in which they have originated. The principal causes of animal variation are climate, food, and habit. A warm

[CONTINUED ON PAGE 8]



DUNRAVEN OF ST. ANNE, FIVE-YEAR-OLD AYRSHIRE. FIRST AT WEST VIRGINIA, TEXAS, OHIO AND ILLINOIS STATE FAIRS

is termed musical talent. The feeding quality, or tendency to lay on fat, characteristic of the meat-producing breeds, is hereditary, as are also longevity and fecundity.

Therefore we may conclude that every peculiarity of the animal organization is influenced by heredity, and it is impossible to urge too strongly, upon the breeder who would meet with the greatest measure of success, the practise of a rigid and judicious selection of both sire and dam, but more particularly of the sire, as it has often been said, and rightly, that he forms half of the herd. First, decide upon the type of animal you wish to produce; second, get your ideal well fixed in mind, keeping it constantly before you, and finally, breed so as to gain that ideal animal by selecting breeding animals that come as near to it as it is possible to get.

Any abnormal peculiarities of the animal organization constituting disease, whether of structure or function, are liable to be transmitted from parent to offspring. Hereditary diseases may make their appearance at the time of birth when they are said to be congenital, or a con-

peculiar training they have received at the hands of men, appear to be transmitted with nearly the same degree of certainty as normal characters. A striking illustration of this is the tendency of the Shorthorns, Devons and Herefords to lay on fat rapidly and mature early, and of the Ayrshires and Jerseys to secrete an abundant supply of milk. These are, strictly speaking, acquired characters, and it is well known that they are transmitted with as much certainty as any peculiarity which characterized the original type. Another proof that acquired characters are hereditary is that young animals and children exhibit peculiar characteristics belonging to their parents, before they are old enough to acquire them themselves from others. From a practical point of view, however, the inheritance of acquired characters, so far as they are of any value, is, fortunately, without any apparent limit.

Abnormal characters are frequently hereditary, but they are not so likely to be transmitted as acquired habits that are in harmony with the original peculiarities of the animal. Any peculiarity of an an-

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has made wonderful advancement in an agricultural way. His life, habits and pursuits will be clearly told in picture and story.

The Great Seal Fisheries

It is almost time for the annual trips to the fisheries on the Newfoundland and Alaskan coasts, and our special article will tell you all about the dangers and hardships that beset the sealer in his work.

Longfellow's Birthday Anniversary

The twenty-seventh of this month marks the one hundredth birthday anniversary of the great poet. We will tell you some interesting things about him, and picture a number of places that have been made famous by his writings.

Men Worth While in History

Sketches of important events in the lives of men who have been famous in our country's history always find ready and pleasing acceptance. A series of such will be started next issue.

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Frederic J. Haskins on his trip around the world picked up a wealth of entertaining short notes that he will give to FARM AND FIRESIDE friends.

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Change of Publication Dates

Beginning with March the publication dates of Farm and Fireside will hereafter be the 10th and 25th of the month, instead of the 1st and 15th. The issue following the one of February 15th will be dated March 10th. Subscribers are kindly requested to have this announcement in mind when the time comes for making the change, as the first issue for March will not reach them until about the 10th of the month.

This change of publication dates will not affect the annual number of issues. Every subscriber is entitled to, and will receive, twenty-four numbers for a year's subscription.

Election of Senators by Direct Vote

THE movement for the election of United States Senators by direct vote of the people is clearly gaining ground every day. Election of United States Senators by popular vote, however, can be brought about only by a change in the Constitution of the United States, and the Senate itself blocks the direct way for submitting to the several states the necessary amendment. This attitude of the Senate tends to convince the public that the change ought to be made, and strengthens the movement.

The growing demand for the change in the mode of electing Senators is based on popular and genuine dissatisfaction with the membership of the Senate—not with the whole membership, but with a part of it. The people know full well that some Senators do not represent them at all, but work against the common welfare; and they believe that, if they had the direct opportunity, they could soon break up the railroad group, the Standard Oil group and all other groups of Senators representing private interests.

Are they not right about it?

Would the voters of Colorado have sent Simon Guggenheim, the head of the smelter trust, to join the "Millionaires' Club" in the United States Senate, if the election had been in their hands?

Would the people of the great state of New York elect Thomas C. Platt, who represents the Express business, as Senator to guard their welfare? Hardly.

Would the voters of Ohio elect Joseph Benson Foraker, distinguished as a thrifty corporation lobbyist, to any office, if they had a chance at him now? Why, they turned him down hard when he was up for re-election as Governor, some years ago, although he was then suspected of really being a "coming statesman."

One state after another is adopting an indirect plan of having the will of the people expressed in the choice of Senator. Nominees are selected by party primary elections, and the majority in the state legislature ratifies the action by electing the choice of its party.

In a recent address before the Indiana legislature, Senator Beveridge advocated a primary election for the selection of all nominees from United States Senators down. He said in part:

"I am very glad to plant myself firmly upon the proposition for a thorough-going and absolutely honest primary law, no matter what the immediate fate of that proposition may be. In the first place, it is absolutely right. There is no argument whatever against it that can stand an instant's analysis. And it is as certain to succeed in the end as the fact that the sun will rise to-morrow morning.

"It is common knowledge that most of our mingled political and economic troubles come from the system which has grown up of keeping nominations for office and the organization of committees out of the hands of the people and in the hands of men so expert that they may properly be called professionals.

"That portion of the people who belong to any political party ought equally to have the right to name all the candidates who are to represent their party and the members of their political committees who are to conduct the campaign in which these same people are to vote.

"Everybody knows that this is not the case under the present system; political committees and the ablest manipulators in conventions have immense and frequent determining influence in naming the candidates of the respective parties. Thus the ordinary citizen is compelled to vote for a candidate in whose nomination he had no part whatever, and to have the campaign run by committees in whose selection he was not even consulted.

"All over the country there is a splendid movement to do away with this system and to return the government to the people. For example, Wisconsin has done this by an almost perfect primary law—probably the least imperfect of any primary law in the republic. Minnesota, also, has an admirable primary law, though not so good as that of Wisconsin. Illinois has as good a primary law as that of Minnesota, but still not the equal of Wisconsin's law. Many other states have primary laws of more or less excellence."

Mail-Order Discussion

Mr. N. R. Hicks, of Greene County, Illinois, sends us the following letter regarding mail-order business:

"When our home merchants tell us that by trading with them we keep our money at home, we seldom stop to consider how too true this often is. They should keep at home only a legitimate profit. They tell us they are selling just as cheap as they can to come out whole. Also, most of them tell us they lose hundreds, and even thousands, of dollars yearly through the credit business.

"From these facts we may form certain conclusions: First, if our merchants' books balance on the right side, we undoubtedly pay for the delinquent credit man's goods. Second, if they are selling on a cash basis, they should keep at home only their profit on the goods sold. The remainder should go to our wholesale city merchants.

"I recently received a bill of goods from one of the firms advertising in FARM AND FIRESIDE, and was well satisfied with every article. If our editor will allow me space, I will give some plain figures. The goods delivered to me at my nearest railroad station cost \$14.39, including everything down to my stamps. On pricing the goods with my local merchant I found I had saved \$3.81 clear. I feel as though I can keep that saving at home just as well as my home dealer."

From practical experience Mr. Hicks has found out some of the reasons for the marvelous increase in mail-order business. Mail-order merchants buy and sell for spot cash. They have, therefore, a great advantage over local merchants who sell on credit. In order to enlarge their trade the mail-order merchants share the advantage of the cash system with their customers, by selling them goods at lower prices than the local merchants demand. The credit system necessarily means higher prices all around than the cash system.

Again, the credit system usually involves bad debts. Unless the local merchant can make his good customers pay enough extra to cover his losses from delinquent customers, he fails in business. Cash customers are getting tired of paying their local merchants for goods delivered to people who don't pay. In fact, it is contemptible meanness for a merchant to saddle his losses on honest customers who pay for what they buy. Under such a system of business, pay customers are up against the dishonesty of both deadbeats and of debt-shifting merchants.

Of course, the local merchants are up in arms against mail-order houses, parcels post and new conditions that tend to relieve cash customers of the double burden imposed on them under the credit system. Under this system, honest customers feel that they are actually being cheated, and they are more than justified in buying where they can save money to keep at home where it belongs—in their own pockets.

J. C. Barnett.

First Impressions

WHEN I meet a person for the first time I invariably take his or her measure, and this estimate of character is usually lasting, and will prevail until later observations may correct or upset it. Thus it is with a farm home. The impressions that are made upon us on our first visit to a place will determine what estimate we will place upon its general character and the character of its owner. When we pass through the front entrance and see the fence corners grown up with weeds and briars, the lawn ragged, weedy and unmowed, the walk rough and crooked, tools scattered around here and there, or when we notice the absence of trees, flowers, lawn, etc., we feel instinctively that

the man who lives there is not much of a success as farmer, as home builder or in any other useful capacity. Most of us value the good opinion of others. It is, therefore, important that we make a good first impression upon them. If there is nothing in us, nothing that gives us character, that is bound to lead us to success, if everything in our lives is of the make-shift, happy-go-lucky style, then it will make no difference about the first impressions. We may as well let the visitor or passer-by discover our real size at the first glance.

The man more genuinely enthusiastic in, and in sympathy with, everything that concerns the true welfare of the American farmer than Chas. W. Garfield, of Michigan, does not live. In a Michigan paper he writes:

"The farm entrance is always on dress parade; it is giving its impression to the passer-by and the visitor concerning the character of the premises and the people who dwell there; and my view is that no other thought in connection with the arrangement should dominate the one expressing peace and quietness and restfulness. First of all, the entrance should express neatness in its detail. We cannot be too particular with respect to the tidiness of the roadside and the avenues to the homestead. The habit of leaving rubbish, farm tools, and disreputable vehicles about the entrance of the farm is a pernicious one, and has no excuse, either in the business management of the farm or in the satisfaction of ownership."

Mr. Garfield does not believe in stiffness of any kind in the planning of the entrance, no symmetrical and laboriously trimmed trees, sheared hedges, no stiff drives alongside the house toward the barn, lined on either side by trees, nor the straight walk from the street to the front door, bordered by prim flower-beds, etc.

Among the vines which may be used to beautify an entrance Mr. Garfield names the wild grape, the bittersweet, and the American ivy, all of which lend themselves in a delightful way to this purpose.

He gave an instance of Burton farm, where for years the most striking single attribute was an American larch covered with Virginia creeper. "Whether it was viewed in the springtime, when the larch put on its fresh summer clothing; in the summer, when the creeper, through its sweet, aromatic flowers, attracted the bees; or in the autumn, when the splendid coloring of both larch and creeper supplemented each other in making a magnificent bouquet, it was always the one feature which the passer-by would recall in connection with the entrance."

A. Greiner.

Postal Reform

I HAVE for years contended that the United States postal department is the worst-managed affair of its size on the globe. That it would pay Uncle Sam well to go over into Canada, England, Germany or even Switzerland and hire some of their postal officials to come over and put our service on a business basis—to show the politicians who are playing with it what a modern postal service should be. Now there is to be an investigation into its affairs by a congressional committee. The committee appointed last spring has been trying to make some inquiries into postal affairs, and has learned that nobody in the department knows anything about the cost of handling the different kinds of mail matter, nor the amount of revenue derived by the government from the various kinds of service. All that the great political managers who run the department have been doing is to sell stamps and keep track of the amounts expended in the service. There has been a deficit every year, and the committee discovered that not one of the officials could say just why. The officials have been working to raise the rate on newspapers, and to restrict their privileges in various ways, to make up the deficit, and yet the committee learned that none of them knew whether the present newspaper rates caused the deficit or not. Canada carries local newspapers, I think it is forty-two miles, free, and charges only half a cent a pound for all distances over three hundred miles, and they have a surplus every year. All civilized nations but this have a cheap parcels post, and they have no deficits. We are informed that there will be no "radical" action by this Congress, so that means no parcels post, nor anything else of any real value to the people. We will continue to pay fat tribute to the Express Caesar and try to look pleasant.

Fred Grundy

About Rural Affairs

More Light!

"MORE light, more light!" were said to be the last words of the great German poet and philosopher Goethe while in the final struggle with the grim destroyer, Death. "More light, more light," I believe, was the cry that filled this world ever since it was inhabited by intelligent human beings. It finds its echo in the breast of every normally developed man. We want more light on all subjects that interest us and in any way affect our comfort, happiness, health or business success.

We also want more and better light in our homes. My good old father dreaded the winters on account of their dreariness and darkness. His soul was longing for more light—for summer and for sunlight. He has gone to his reward, but his sons have inherited his ardent love of light. I can easily get reconciled to winter time and winter-time conditions so long as I have plenty of light in the house. This touches one of the most serious drawbacks and deficiencies of the average farm home—the want of good light. A dark home cannot be a cheery home. It cannot be a home that attracts the young generation and keeps the boys on the farm. It cannot be a home that invites home study or stimulates educational progress. There is an irrepressible longing and craving for "more light" in the boys' and girls' souls. Dreadful, dreary darkness will surely drive the young people that are built of good material, and have push and energy, away from the dark farm home to seek the cheerfulness of the well-lighted room and surroundings elsewhere. For this reason we cannot give too much importance and attention to the matter of "more light." And we want the very best light that it is possible for us to obtain, both for our fireside and for our minds. The well-lighted room leads to home study and research, and finally to the better solution of the various problems that confront us in the home and on the farm. "More light" is one of the first essentials.

WHAT LIGHT

I have finally decided in favor of electric light for my home, and this mostly on account of greatest convenience. It does away with the trouble of cleaning and filling lamps, spilling oil, and of all the risks and dangers connected with the handling and carrying such lamps, especially where there are children around. The first cost of putting the wires into the house and of all the fixtures is hardly more than that of an extra supply of modern lamps, and the cost of the light not much more than the cost of oils and gasoline. We can afford to pay a higher rate for the sake of the convenience, saving of labor and lessened dangers.

But it is only a comparatively small number of rural homes for which electric light is available. The great majority of rural people must choose between kerosene, gasoline and possibly acetylene. The last mentioned is perhaps the most perfect of these and a fair substitute for real sunlight; but it may have its drawbacks, as everything else has, and it may not be available, or its use advisable in many cases. I have tried to get the best kerosene lamps, and at times thought I had fairly good light in the house, or at least for the table and desk. Yet I was never wholly satisfied with this light, and finally tried the modern gasoline lamp. This diffuses the light more evenly through the room, and the light is whiter and stronger, and was satisfactory until we got into trouble with the mantels, and with the gasoline, etc. We try to get the best gasoline, but I am told by retailers that the agents of the Standard Oil Company often turn the common and the higher grades of gasoline out of one and the same tank. It does not seem to me likely that the Standard Oil Company, after putting prices up to the top notch, and this without visible reasons, would actually resort to fraud by furnishing to the customer a lower grade of goods under the name and for the price of the higher grade. But it may be necessary or advisable for those who use gasoline lamps to buy high-grade gasoline by the barrel, so as to be sure of good gasoline, well-burning lamps and good light.

I have not yet given up all hopes, however, that we will finally be able to obtain alcohol cheap enough to take the place of gasoline and kerosene, and give us a better light, with less trouble from clogging lamps and spoiling mantels.

Too Much Candy

Candy stores everywhere do a good business. We are in danger of becoming a nation of habitual candy eaters. Children cry for it; young people feed on it, and older people buy it for themselves and for the children. Whether it is a fit thing to eat and to give to the children is another question. My personal experience is that there are few things that will upset a stomach and cause internal trouble more quickly than poor candy eaten to excess. In an editorial note the "Rural New-Yorker" says:

"The glucose trust (said to be controlled by the Standard Oil combination) uses poisonous sulphites to cheapen the cost of its product. Glucose is used in candy making, and the Pennsylvania Dairy and Food Commission has been conducting a war against the dangerous stuff as a result of numerous poisoning cases. This method of cheapening production seems a particularly villainous form of indirect murder."

I believe in "home mixing," not only in regard to fertilizers, but also in regard to the things we eat, including candies. If we must have candy for ourselves or our children and young people, no better, safer and more harmless kind will be found than what we can prepare in our own kitchens from molasses, pure sugars, cocoas and nuts. Why run the risk of buying ready-made poisonous mixtures? And why eat so much of any kind of candy?

Fruit Grower and Scale

The past season in the great fruit-growing belt of western New York has been so unusually favorable for the spread of the San Jose or pernicious scale that this insect has become the central point of the discussion at every fruit growers' meeting held in the state. Every question, with only two or three exceptions, asked through the question box at the last meeting of the famous Niagara County Farmers' Club touched upon some phase of the scale problem, and the members seemed to have no interest for anything outside of this question.

At the New York State Fruit Growers' Association's meeting in Penn Yan, New York, January 2d and 3d of this year, a whole session and three or four formal addresses or papers were devoted to the consideration of this same subject. It cannot be denied that here we are in a serious predicament, and many others in other localities with us. The prospects are that unless some parasite or disease of the pernicious scale comes to our relief, every apple and pear tree and many other fruit and other trees, except those in the hands of professional or other people who keep up an everlasting and persistent fight against this pest, will be destroyed. The older apple trees on our average farms, and even in larger orchards, are falling a prey to the scale at a rapid rate, and in all probability will soon be a thing of the past.

This means that the whole fruit-growing business of the state will fall entirely into the hands of the comparatively few, and mostly large and professional, growers, who by persistent effort manage to keep the enemy under control. It means that the home grower and the dweller in the suburbs of villages and cities will have to bestir themselves if they desire to enjoy much longer the benefits derived from the possession of a few fruit and other trees in their yards.

A dismal picture was shown at the Penn Yan meeting of the conditions as existing now in this respect in Kinderhook, a little village in central New York. Where formerly the yards of the people were dotted with fruit and ornamental trees and shrubs, giving to the whole section the appearance of thrift, cheerfulness and comfort, the premises now are found bare and treeless, and the people are without the accustomed home supply of fruits—all owing to the devastations wrought by the scale. When the results of the work of the scale during this past fall become fully apparent next spring, I fear that Kinderhook's experience will be duplicated in many other villages and by thousands of home growers away from villages.

Fortunately we now have a number of remedies or methods that give to us the means of keeping this pest fairly under control if we will exert ourselves and keep up the fight with persistency and thoroughness. Without such exertions, without persistency and thoroughness, however, the case is hopeless.

A. Greiner

Salient Farm Notes

The Good Little Farm

A YOUNG man living in Indiana writes that he has just purchased twenty acres of good land five miles from a good market, and he would like some advice about the crops he should raise on it. The soil is a sandy loam, now capable of producing forty to fifty bushels of corn to the acre.

Twenty acres of sandy loam in what is termed the corn belt is what I would call a mine. If I had it, the first thing I would do would be to double its producing capacity. Such land can be made to produce eighty to one hundred bushels of corn to the acre, and yields of clover and alfalfa that would gladden the heart of a miser. He may pile onto such land all the manure he can make and obtain, knowing that he will get full value, with interest, in return. Five acres well set in alfalfa will yield him at least two good crops of the most nutritious hay that can be grown.

Two light farm horses will do all the work on such a farm, and do it well. He could keep two cows—which should be extra-good ones—and they will make him a nice little sum of profit. He could raise fifteen to twenty pigs a year without any difficulty, and they would bring him a neat little sum. Usually those who live on small tracts like this keep their pigs in little cramped-up quarters, and they do not thrive so well as those on pasture, chiefly, I think, because of lack of needed exercise. An acquaintance who lives on a small farm has remedied this matter in a way that is a little unique. He has made his pig yard alongside the line fence, making it a hundred and fifty feet long and ten feet wide. The yard at the shed end is thirty feet square. In early spring the two breeding sows are shut out of the runway and it is seeded to oats. The little pigs are allowed to run out until they begin to root and damage things, when they are shut in and the runway opened to them. There is a narrow strip of clover along the runway, and they are given some of this every day as long as it lasts; then they get sweet corn, rape and other green stuff the rest of the season. This man always has excellent success with the fifteen pigs he raises annually.

Ten acres in corn, five in alfalfa or clover and five in soiling and quick-money crops, yards, buildings, fruit trees, garden, etc., will give him all the work he will want through the whole season. Then there is the poultry. That is a crop well worth his best attention. It is the best ready-money crop there is for the small farmer. Not long ago I received a letter from a man who has only five acres of land. Last year he had two acres in corn and one in wheat. His corn yielded one hundred and seventy bushels, and his wheat was so fine that he cut a measured rod, thrashed and weighed it, and found that the yield was at the rate of forty-one bushels to the acre. He had it cut, bound and stacked for winter feed for his fowls. He gave it to them in the sheaf and let them work it out, or thrash it, themselves. He says they have been laying remarkably well. His poultry products—eggs and chickens—have brought him close to four hundred and fifty dollars. He tells me that he had something to sell—eggs, chickens or vegetables—almost every day in the past year. And he adds: "I am glad to see you advocate the small farm. Thousands of men who are working themselves almost to death as tenants for somebody else, and thousands of others who are working at some hard labor and saving next to nothing, can make a fine living and save something as five and ten acre farmers. Poultry is one of the best-paying crops one can raise on the small place. It is ready cash all the time, and if one can grow the greater part of the food needed, the profit—or maybe I should say the income—is something to be pleased with. I have used a horse on my little place only four times this season, and I had a man plowing and harrowing twice with a team. I tried your plan of plowing my garden with a strong double-shovel plow, and it worked very fine. It is just the thing. I think it loosens and stirs up the soil much deeper than it is done with the turning plow, and makes a much better and deeper seed bed."

Another small farmer writes: "You are right about the small farm being a good thing, but one has to learn how to get the best value from every foot of the land. I had one acre in corn last year, and it yielded seventy-nine bushels. I have another acre in house lot, garden

and fruit, and another in poultry yard. This last acre is divided into four lots of equal size. It is the plan you sent me six years ago. Half of each lot is in clover, and the fowls are let into these clover lots half an hour each day. After a lot has been in clover three years I put my fowls into it, as you advised, and seed the other to clover. This rotation plan keeps the land fit for chicken yard and gives me all the green food my fowls need through the growing season. When they are permanently put into one of the clover lots it does not take them long to kill out the clover. The fowls enrich the land, so that the clover makes a very strong growth and yields more green food than one would believe if he had never seen it."

In the matter of garden truck or small fruit one should grow only such as there is a ready sale for in his market, and it should be of such quality that people will buy it on sight. Every season all markets are glutted with inferior produce that nobody wants, while that of the best quality is snapped up at good prices. I know a man who last summer could not supply half the strawberries he had orders for at fifteen cents a quart, yet the market was flooded with berries of an inferior size and quality at eight cents a quart. The same man sold quite a large crop of onions for a dollar a bushel, while every store in the town was well supplied with fair-sized onions. If one has the size and quality he will have no trouble finding customers. But on twenty acres one will find he will have about all he can attend to comfortably if he grows ten acres of corn, five of alfalfa or clover and two or three of needed soiling and other crops, and keeps fifteen or twenty pigs and a good lot of poultry, besides his two horses and two cows. If he manages well he will not be unduly crowded with work, but he will get all the exercise needed to make him sleep well at night. He will require but little help, and his expenses will be small, so that nearly his entire income may be banked or set to earning him more.

Life Insurance

One of these small farmers writes from Michigan, asking me if I would advise him to invest a goodly sum in life insurance. I would not. I do not know of any life insurance in which I would advise a farmer to invest. What sense is there in hiring strangers at extravagant salaries to keep your savings for you? Why not set your savings to earning you something? I have known men to put hundreds of dollars into dues and assessments, get thrown out of work and unable to earn enough to keep their policy alive, and lose all they had put into it. If the same sums had been put into a good bank paying three or four per cent, or loaned on good security, the man would have had a fund to draw upon in the day of his distress. And he would have gotten the full benefit of his savings while he was alive and needed them. If your dues to an insurance company would be one dollar or ten a month, why not add to it the cost of getting into the company, and put the whole amount into a good bank at interest, then each month add to it the amount you would have had to pay into the company's coffers, and see how you stand at the end of a year. If you will do this ten years you will find quite a nice little sum to your credit. And it can be used if needed while you are alive. If it is in the hands of an insurance company you will have to die to get it, and the chances are pretty numerous that you will lose it before you die. I rather think it will be best for you to insure yourself, and put the dues where they will earn you something instead of the other fellows.

Fred Grundy

A Blue Pencil Mark Opposite This Paragraph Means that

YOUR SUBSCRIPTION HAS EXPIRED

or is about to expire, and that you are one of those we count on to renew for another year; but if you have already sent in your renewal for another year, we assure you that it will receive proper attention in due time.

Two Barns Compared

THE ground plans of two barns are shown on this page in such a manner as to demonstrate the great superiority of the circular barn over the square or rectangular one of common use.

There are 172 linear feet of wall in the rectangular barn, 32x54 feet in size and encloses 1,728 square feet of floor space.

In the round barn 55 feet in diameter there are 172 linear feet of wall, and it encloses 2,365 square feet of floor space, a difference of 637 square feet in favor of the round barn. This is the difference on the ground floor alone, and when we add the mow floor we find the astonishing difference of 1,274 square feet in the two floors, which is hard to believe, but nevertheless true.

I present the two plans carefully scaled so the readers can see for themselves and can figure it out to their entire satisfaction.

The only difference in the cost of these two barns would be in the lumber for mow and roof. The round barn enclosing a greater floor area would of course require more shingles to cover, and more flooring material, which is insignificant as compared to the great difference in size or capacity. Taking the two barns as a whole, the round one is easily one third the most useful, while nothing is said about the other advantages the circular form has.

I have chosen barns of the smaller and more common size in order that the comparison may prove of value to the greatest number, and because of the fact that so many fail to grasp the idea of the shape having anything to do with size or capacity as applied to the building question. As the silo grows in favor as a factor in economical feeding, so will the circular barn; and the one fits into the other perfectly.—Benton Steele in the Indiana Farmer.

Preserving Manure

It is generally considered best to haul farm-yard manure directly from the stalls, scatter on the fields as soon as possible and incorporate with the surface soil. Where this is not practicable, several methods of preserving manure may be followed satisfactorily. Manure may be kept in deep pits or large heaps, and if well compacted, so as to exclude the air, there will be comparatively little loss of nitrogen and the fermentation will destroy weed seeds. The manure should be kept under cover and moist at all times, as alternating drying and wetting is objectionable. The manure may be allowed to accumulate in the stalls, and if firmly trodden, there will be comparatively little loss if the manure is kept moist. A good supply of litter should be used, and there is no objection to an accumulation four to seven feet deep. It is important to remove the manure and spread it over the ground immediately after the animals are taken off, for it has been found that there is a rapid loss of nitrogen amounting to as much as thirty per cent if the manure is allowed to lie in the stalls after the animals are taken off. The manure may be improved to some extent by the addition of acid phosphate or floats. About fifty pounds of either substance should be mixed with every ton, and a small amount scattered over the stall each day will be helpful and tend to balance up the plant-food elements in the manure. Gypsum may also be used to fix and hold the ammonia, which may otherwise become volatilized and escape into the air.—Prof. A. M. Soule in the Practical Farmer.

Cheap Clover Seed

It is very humiliating to learn that the United States exports annually five to thirty million pounds of high-grade clover seed, and in return imports somewhat smaller quantities of an extremely low grade. This is used by the "mixers" to make cheap grades which have nothing to recommend them but a relatively low price. It is said, on good authority, that all of the imported clover seed from some of the old countries contains a large dodder, that cannot be separated from it, hence, is sowed with the clover, and thus the fields are seeded for all time with one of the most pernicious weeds that grows at home or abroad. Dodder is not the only weed seed found in these cheap imported clovers. Canada thistle, witch grass, ox-eye daisy, chickweed, wild madder, etc., are frequently found in large quantities.

The clover seed that will germinate and grow in the cheap seeds is often much more expensive than the best qualities. Farmers' Bulletin No. 260, issued by the Department of Agriculture, Washington, D. C., calls attention to a sample which when tested for weeds and dead seed demonstrated clearly that the clover which would germinate had cost the purchaser nearly thirty cents a

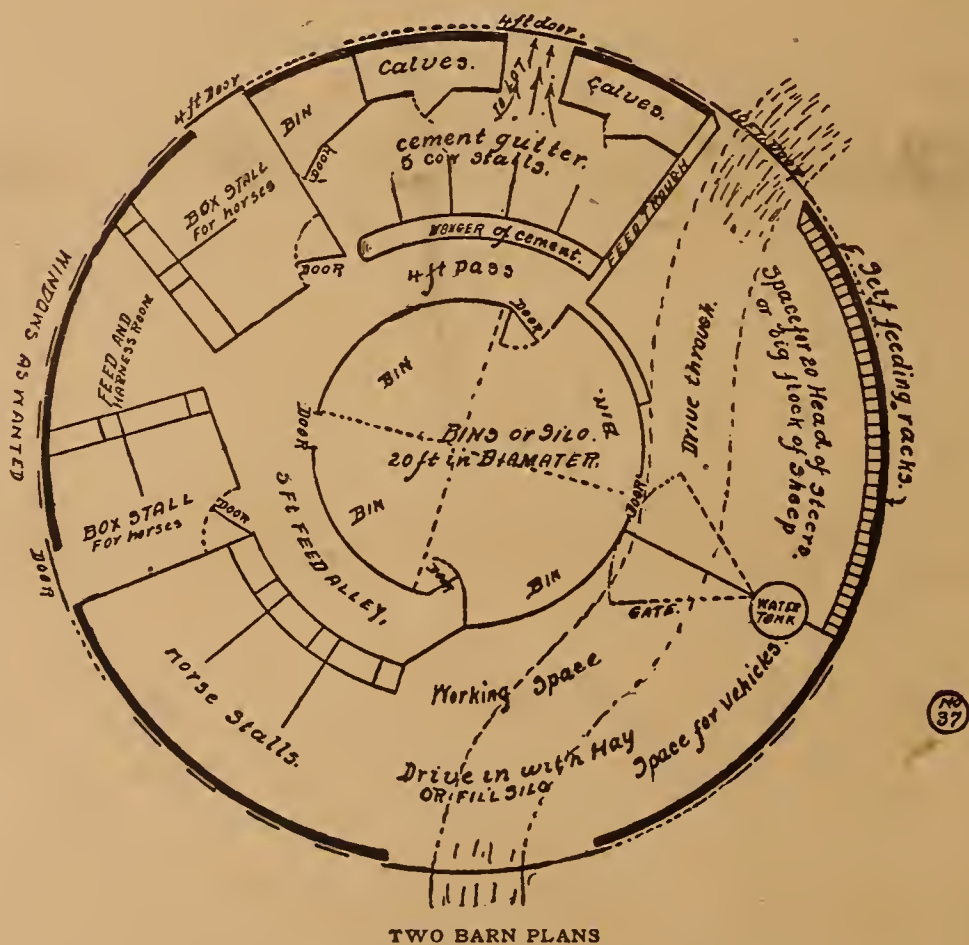
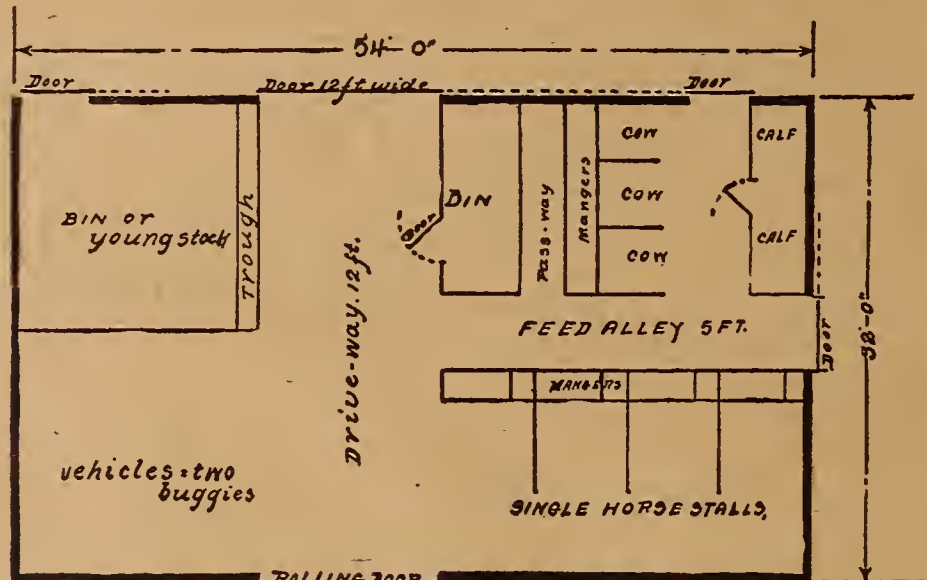
pound and that it was of a low grade, when the best qualities, with almost perfect germination, were selling for about half that price. This does not include the damage to the land that might occur from sowing an assortment of noxious weed seeds. This statement is suggestive of the false economy practiced by the farmer who persists in buying cheap grass seeds.

We have not considered the item of adulteration in clover and other grass seeds that come to us from abroad as low qualities. Yellow trefoil seed, which is not grown in the United States, is frequently found in large quantities in imported clover and alfalfa seed. In ap-

order; and even if the engine is sold by a local implement dealer, the same is true, because the average implement dealer knows precious little about the mechanism of any implements, and generally nothing of the gasoline engine. Inquiries regarding gasoline-engine troubles frequently come to me, and these hints relate to some of the most ordinary troubles and the remedy. Usually the engine is sold all complete ready to start, and this includes a

BATTERY FOR IGNITION

This battery will be found very efficient for a short time, but soon there will be trouble, and generally we can



TWO BARN PLANS

pearance it resembles the "real thing" very closely, but in value it is entirely worthless to any one except the "mixer," who realizes a handsome profit on his deceptive art. Seedsmen of a questionable reputation will continue to meet the demand for a cheap clover seed as long as farmers buy and sow it. Their harvest is on when the best grades are worth fifteen to twenty dollars a hundred pounds, as they promise to be when farmers want them to sow next spring. Don't insult your clean, high-priced lands with cheap imported or home-grown grass seeds. Buy the best obtainable, regardless of price. They are the cheapest in the end.—A. K. Bush in the Northwestern Agriculturist.

Gasoline-Engine Pointers

Hundreds of manufacturers are kept busy day and night supplying the demand of the farmers for gasoline engines. A comparatively large number of these engines are sold direct to the farmer, consequently the farmer has to familiarize himself with the mechanism to enable him to keep the machine in

trace it to the battery or igniting connections. The dry battery is short-lived, but does not cost very much, and that is the reason, presumably, why the manufacturer sends such a battery with the engine. Where much moving is necessary the dry battery is convenient, but otherwise it had better not be used. The Edison primary battery with the zinc and carbon-copper plates immersed in a caustic potash solution is simple, cheap, efficient and lasting. The first cost is more than a dry cell, but, considering the service, it is the cheapest. Use nothing but insulated copper wire for all connections, and be sure all the connections are clean and tight.

THE SPARK COIL

Here again a dollar or so may be saved in the outfit, and a cheap coil is put with the engine. The result is a poor spark as soon as the battery weakens a little, thus shortening the life of the battery and giving poor results. Use nothing but a large, well-made spark coil and keep it clean and dry. If it becomes saturated with oil it will not do satisfactory work. Do not allow

any of the plates or naked wires to come in contact or you will have a short circuit and get poor results. The mechanism that produces the spark is different in different engines, but the important thing is to keep all the parts clean and properly insulated. In all contact igniters the contact point has to be renewed at intervals.

POOR QUALITY OIL

Poor and unsuitable quality lubricating oil often causes trouble. All bearings must be kept clean and well lubricated, but for the cylinder use only oil especially designed for that purpose, otherwise you will have burnt oil and pitch stick the valves and compression ring, resulting in very poor or no power. Injecting a little gasoline into the cylinder before starting will tend to cut out the old grease and allow the parts to work freely. Careful cylinder lubrication is important for good results.

THE VALVES

The valves must be kept in perfect working order. After using an engine a little while a friend told me he got only half the power he did in the beginning, and on examination I found the mechanism that opened the exhaust valve slightly out of alignment, only half opening the exhaust, causing the engine a troubled respiration, as though it were affected with asthma. A little adjustment caused the valve to open wide, and away went the engine as it had done when new.

After each explosion the cylinder must be freed of the burnt gas, otherwise the next charge will not explode; or if it does explode, the impulse will be feeble and the power cut down very much. If your engine begins to wheeze and groan and misses explosions when the spark is good, look at the exhaust, as that is likely not doing its work. The compression must be good, but a clean, well-lubricated cylinder will usually give that if the valves are in order. The adjustment of the intake and the carburetor is generally so simple that little trouble is experienced there.—L. W. Lightly in the National Stockman and Farmer.

Barley Good Feed for Stock

Though barley is somewhat particular as to choice of soils, with proper cultivation it may be grown profitably on almost any soil, except heavy clays. In some seasons red sandstone soils and chalks bring fine quality grain. Overmoist land must be avoided, as this condition is wholly against the profitable culture of barley. Good barley land needs little cultivation. After hoed crops the land will generally be clean, and being a shallow-rooted plant, barley does not need deep plowing, but a fine, dry, warm seed bed should be provided, with the fertilizing element near the surface. There is no better preparation for barley than that of feeding off some crop in the ground by sheep, such as roots or rape.

In these times, when Northern sheep are bringing such remunerative prices, it would pay Eastern farmers to devote some attention to the feeding of sheep in this way on their land. The results in the barley crop, either for sale or as a stock feed to be consumed on the farm, together with the increasing fertility of their lands and heavier yields in succeeding hay crops, would surely bring satisfactory profits.—A. Williams in the New England Homestead.

Conserving Soil Moisture

So far as cultivation is concerned, there are three principal steps in the conservation of soil moisture:

1. The soil must be loosened to a considerable depth in order to prepare a reservoir to receive the rain and carry the water downward into the soil. This may be accomplished by deep plowing, by listing, or by disking unplowed lands.

2. The water which is carried down into the subsoil must be brought back again into the surface soil where the seed is germinating and the young roots are growing, and to accomplish this a good connection must be made between the furrow slice and the subsoil, and this is the purpose of the use of the subsurface packer immediately after plowing.

3. Finally, in order that the water which is drawn up again toward the surface may not reach the air and be wasted by evaporation, the upper two or three inches of the soil must be kept mellow in the form of soil mulch, and this is accomplished in the growing of crops by frequent cultivation, which is not so practicable with wheat as with corn and similar crops. However, the harrow may often be successfully used in preserving the soil mulch in the wheat field.—A. M. Teneyck in the Kansas Farmer.

Ought These Things to Happen?



SOME things have come to pass on our farm that it seems to me never ought to have happened. I do not suppose we are any more careless about such things than most of farmer folks, and yet I do believe we all subject ourselves to serious

injury to life and limb very often when it is not at all necessary. It is with a view to encouraging every one who lives on the farm to be more careful that these stray notes from my log-book are set down.

One afternoon—and as it happened, it was a Sunday afternoon—one of our boys, a sturdy lad of fourteen, came running into the house with a white face. We had not missed him from the family circle, where the rest of us sat reading quietly; but he had slipped out to the barn, and boy like, had been tucking a few corn stalks through a hand feed cutter.

And there he stood, face pale, leaning up against the side of the door, with his right thumb smashed all to a pulp at the end. Not a sign of the nail was to be seen. He had left that out at the barn, between the cogs of the feed cutter, into which he had accidentally caught the wounded member.

Well, that called for a trip to the doctor, sure enough. We hitched up old Jack and hurried away to town two miles away. The doctor was away another mile farther on, so after him we went, leaving the boy at the office, with his aching thumb. The doctor carefully dressed the wound, and we went home to care for it. The thumb never was just right after that. It always had a rather stubbed appearance. But you never saw a happier boy than he was when he discovered one day the first little sign of a nail peeking out at

off—the way so many of us do, first or last—and could not wait. But a law was made after that on our farm, that come what might, no woman should ever be guilty of running such a risk as that, whether the beds ever were filled again or not. Clambering about in a barn is no business for a woman. It is bad enough for a man; but for a woman, with her delicate make-up, it is little less than criminal.

One more accident that came to our folks must close this chapter. That happened to the same boy who had his thumb smashed in the feed cutter. He was always handy with a team, and when not more than eight years old began to beg that he might be permitted to drive the horses. On the day in question he had gone a quarter of a mile away with the team and stone boat to do some work. The master of the house was sick that day and the boy was alone.

Sitting at the window, looking out toward the field where the boy was, all at once we saw the team make a great lunge forward. Something evidently was wrong. The next moment the boy who had been standing on the stone boat was thrown off backward. The team had escaped his control, and away they went, down a little hill, straight toward a rail fence. Half way down the hill the team pulled loose from the boat, and went on till they came to the fence, where they both went down in a heap, one horse on one side of the fence and one on the other.

Sick as the master was, he thought it about time he went to the rescue, and dragging himself out, he hastened as fast as he could to the spot. By the time he had reached the place where the team had fallen, however, the lad had succeeded in getting them up, and was untangling the harness. The horses were scratched up some, but not badly

Farmers' Correspondence Club

Care of Manure

Manure of all kinds should be well protected during bad weather. If it has been carefully kept under cover and properly composted it will show its effect almost immediately, but if it has been leached by heavy rains and exposed to drying winds and the sun's rays it will not be as valuable, although it will not be worthless, for something of more or less value will remain. A little water on it now and then is not a disadvantage, but by no means allow manure to take heavy rains and snows, for these carry away some of the most valuable elements.

In caring for the manure that is produced on my farm, I first prepare a suitable place, sloping toward the center, and under cover. I then put down a layer of muck or road dirt, over which I place a thick covering of leaves or waste bedding of the stables and pens, and then throw on the manure. From time to time I throw all the soapuds and liquid manures over the solids. As soon as the manure has been placed on the heap I commence the process again with the dirt and leaves. I finish by leaving the manure covered. I keep it damp, but in no case do I let it get drenched. Moisture, however, will assist decomposition, especially if the liquids of the stables are used. We must not avoid the little extra labor, but must take good care of the manure.

Illinois.

WM. H. UNDERWOOD.

Improved Farming in Indiana

In White County, Indiana, A. A. McKain is improving one of the most attractive farms of the state. The Tippecanoe River cuts this farm in two and helps to make the scenery of the most attractive character.

There are thirteen hundred acres in the farm, more land constantly is being

will handle and dispose of the entire product of the farm.

The land of this farm is among the best of the Hoosier State. Some of it cost all the way from seventy-five to one hundred dollars an acre, and one tract cost more.

During the present year one tract of this land produced fifty bushels of wheat to the acre. Already a great stand of clover and alfalfa has been secured.

J. L. GRAFF.

The Crow

While I enjoyed Mr. Vincent's article on bird friends, and endorse it in the main, I cannot quite agree with him when he classes the crow as a friend. Theoretically he may be all right, but practically the crow certainly does more harm than good. The crow is on hand even before the corn gets to the top of the ground, and I have seen whole fields practically destroyed by crows, so that they had to be planted over again. Then, again, just when most damage can be done to the young shoots of corn Mr. Crow is on hand again, picking both sides of the young corn shoots just enough to ruin the whole ear. I have seen corn fields damaged at least one half at this season by crows. It is true that the crow also destroys many insects, but there are many other birds that do the same work as insect destroyers and do less damage to crops. In fact, the crow does not do any work of this kind which may not be done by numbers of other innocent birds. Then the crow has the reputation of destroying many eggs of innocent birds, and is an enemy of birds that are more useful to the farmer than he is, considering his disposition as a grain destroyer.

While I do not favor killing crows when they are doing no harm, still I think it a good plan to shoot an occasional one, to warn the others that they must stay out of the grain fields. If one or two crows are killed and hung up in the corn field, they make the best scarecrow that I have ever tried. It may be that crows are not so bad to injure crops in some parts of the country as they are here, but I am persuaded that we could get along very well without the crow



A VIEW OF PART OF THE BUILDINGS ON THE MCKAIN FARM

the end of the thumb. We were so thankful that he came out of it as well as he did.

But the thing of it is, that accident was not at all necessary. If the man who made the machine had done what he ought to have done, and put a cover over the wheels that formed the gear of the cutter, no one would have been injured by it. We went at it after that, and made a shield out of a piece of zinc we happened to have on hand, and fastened it over the wheels where they mashed together, and no one has had any trouble with it since. But I have been demanding ever since that people who make cutting boxes shall put their own shields over the gearing, and not send them out open, to chop and smash the hands of boys and men who handle them.

The next accident that took place at our farm was to the good wife. She fell in the big barn clear from the scaffold over the main floor to the bottom of the barn. It happened that she came down feet first, straight as a gun barrel, striking on her feet, so that she suffered no serious injury. A little heap of straw that lay on the floor helped to break the force of the fall, and so it all came out well.

But think of the risk she ran! If she had sprained one of her ankles or broke a bone or two we would have had a sorry time of it. The lesson we learned here was that no woman ever ought to go overhead in a barn like that. She had been housecleaning and wanted some straw to fill the bed tick with. The men folks were away out in the field at work, and she wanted the bed filled right

injured. Neither was the boy hurt. It was a happy day, after all. When we thought how much worse it might have been, there certainly was need for congratulation.

In this matter there was a lesson, too. The boat to which the team was hitched was like nine out of ten farm sleds of the kind on the farms of this country. It had no tongue in it. The ground was a little slippery that day. The boat ran ahead on a bit of incline till it struck the heels of one of the horses, and the trouble commenced as quick as a wink.

We conclude that every such stone boat ought to have a good tongue in it, to prevent its sliding forward down such inclines. That would save untold trouble.

We have had a good many such accidents on the farm, all coming along naturally enough, and still all avoidable. The question is, should not we be careful enough to anticipate a good share of the accidents that take place on the farm? I know it is a great deal easier to put a padlock on the door after the horse has gone away at the end of a halter held by the hand of a thief. It is easy, too, to preach to somebody else and be a miserable sinner yourself; and yet, do we not all know that the worst things that come to us everywhere are the things we might have avoided by the use of a reasonable degree of foresight?

Edgar M. Clement

added to it, and if the owner accomplishes all that he has set out to do, he will do much for the agriculture of the state.

The buildings shown in the accompanying picture show only a portion of the farm structures. There are two barns shown in the picture—one for horses and the other for his dairy herd—but another fine barn, that has just been completed at great cost, is not shown. It is constructed of native stone and hard woods, and is said to be one of the most complete and convenient in the Hoosier domain. It is used entirely for equine animals, and it houses some of very good blood.

Already two complete creameries have been built on the place, and the owner has planned a farm home that will cost twenty-five thousand dollars. The third building from the left end of the picture—the one showing two openings in the gable—is a potato house. It is constructed of stone to the eaves, and will hold the product of one hundred acres of potatoes. That was the size of the McKain patch this year.

All of the buildings shown in the picture are connected with an elevated track that runs in the rear of the structures. By the use of this track an article may be conveyed from one building to another.

Mr. McKain has invested largely in Jersey and other cattle. He has a fine herd of imported sheep. He proposes to plant out a great variety of small fruits. Already he is supplying one of the largest hotels in Indiana with cream and butter. He has planned to establish either in Chicago or Indianapolis a store that

here. There are other and better means of controlling insect pests than trusting them to the control of the thieving crow. West Virginia. A. J. LEGG.

Birds and Weeds

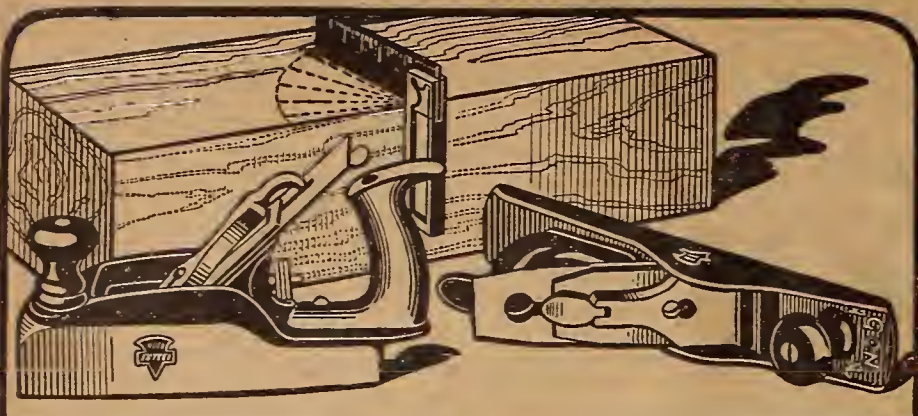
Crows not only destroy lots of corn, but also kill many other birds. If they once get a notion of catching little chicks, they are ten times worse than hawks. They do more damage than they do good. English sparrows also are a nuisance. They rob other birds' nests or drive the birds away. As to the weeds, if each farmer would pay more attention to getting rid of such weeds as wild carrots, Canada thistles, strap-leaf plantain, etc., there would be less of them. One farmer, perhaps, will be very particular about them, while his neighbor lets them go to seed, and the wind carries them over to the one who has worked hard to get rid of them.

Why don't some one have ambition enough to enforce the law to keep the sides of the roads clean? How many times you may ride along and see wild carrots going to seed!

Ohio.

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Gardening

Currants for Market

At the recent meeting of the New York State Fruit Growers' Association at Penn Yan the discussion touched upon the currant. The question was asked whether currants could be grown successfully on sandy loam.

Mr. S. D. Willard is a fruit grower of long experience. He said "yes, if it is loam and not sand." He recommended the Wilder currant as superlatively good, having fine foliage, and being, in fact, the only currant fit for commercial purposes. He claims to have gathered twenty-five quarts of fruit from a single bush.

I can tell a similar story. Six or eight years ago I bought a lot of plants from Mr. Willard, and planted them as an experiment. They have paid for themselves and for the land they stand on, a good many times over, although they have been several times badly attacked by the San Jose scale. Last summer I gathered twelve to sixteen quarts of as fine currants as any one would wish from each of a number of bushes, although not quite that many to a bush on the average in the whole patch. The rows are six feet apart, and the plants stand four feet apart in the row. The soil is a strong loam, which I believe is better for this fruit than sandy loam. The whole crop was sold to townspeople at retail, in lots of from five to twenty-four quarts, at ten cents a quart. The returns from a number of bushes in the lot were close to one dollar and fifty cents a bush.

I have no hesitancy to say that I know of no finer or more profitable and generally more satisfactory currant for either market or home use than the Wilder. It is somewhat late, and hangs well to the bushes even after maturity. But look out for the San Jose scale. It is a great lover of currants. Spraying with crude petroleum in the spring, just when the buds are breaking, will put an end to the scale and is a safe practise.

Aster Enemies

The aster is half hardy and can stand a light frost. We often have good flowers long after the first frosts of the fall have killed the more tender flowers and vegetable plants. The aster beetle, however, is often very destructive to aster beds.

This flower will do fairly well in semi-shade, as among or near taller shrubbery in the border, and in such situations it seems less subject to the attacks of the aster beetle, its greatest insect enemy, than in full exposure to the sun.

If I had to fight this beetle, I believe I would try to do it by spraying the plants with arsenate of lead or disparene, beginning with a solution of the strength as we use it for potato beetles and slugs, and if necessary increasing this strength, up to one pound of the arsenate to ten gallons of water, until the beetles yield. This same remedy, especially in Bordeaux mixture, is also effective against the flea beetle, which often injures the young plants.

Flowers for Suburban Home

A reader in Pleasantville Station, New York, who has a small plot of ground, suggests that, in order to be helpful to people living on a small place in the suburbs, some information be given as to the selection and cultivation of flowers and the control of their insect enemies. Without doubt flowers are an essential equipment of even a very modest modern home and its surroundings. I know but very few houses in this vicinity where the good woman does not care for and pet at least a few house plants, and the small yards of some of our day laborers make a very creditable show during the summer of annual, biennial and perennial flowers. We want more than a house to shelter us, a place in which to sleep and eat. Flowers are one of the things that make of the house and premises a home, and life endurable, by adding cheer and sentiment and refinement. Yes, some notes on flowers shall be given from time to time.

The thing to do just now is to look through the seed catalogues on your table and select the annuals or biennials or perennials which you may wish to start in the house or in a hotbed, so as to have early flowers. There are, for instance, the asters, a group of plants which for their wealth of bloom, gorgeous appearance and long period of flowering, especially in the fall and until after frost, are justly popular, and for the home of the flower lover are almost indispensable.

I have known instances of people in the suburbs of cities growing asters in bigger

beds, and realizing a good profit by the sale of the cut flowers to the wholesale florists. There are a large number of good varieties. It is well to have a collection of them, and every individual grower must select what he wants according to his notions and tastes. One may want separate colors, another may be satisfied with mixed colors. I like the Victoria, the Giant Emperor, the Comet, Chrysanthemum-Flowered, Dwarf Peony, Crown and other aster varieties.

Sow seed in a box in March or early April, and transplant the young seedlings into thumb pots or into flats, even if only an inch and a half apart, and in spring set them into the bed or border ten inches to a foot apart each way. The soil should be very rich. Mulch and free watering during dry weather are beneficial. Promptly remove all faded flowers.

We should also provide at this time for a supply of verbena and ten-weeks stock plants. The former is a very thankful flower of easy culture, giving a fine show of bloom during the entire season. Start the plants as directed for aster. The ten-weeks stock is one of my old-time favorites. It comes into bloom early, and under good culture, promptly removing the faded flowers, will continue in bloom for a long time. Its strongest point, however, is its delightful fragrance. When you plant a large bed of them, you can fill the atmosphere in a whole neighborhood with the most delicious and pleasing odor. You have to provide for a number of plants in excess of the real needs, as many will come single, and had better be removed as soon as their single character is discovered, to give room for the double ones held in reserve.

Poisoning the English Sparrow

A reader in Newport News asks how to get rid of the little English sparrows. They eat his young garden peas and the chicken feed. Sometimes this bird gets into mischievous habits, such as eating the first young pea sprouts or disbud-ding currant bushes, etc., and in winter it is sure to try stealing some of the wheat or buckwheat or cracked corn, if such grains are scattered outdoors for the chickens.

When sparrows become too numerous and destructive, it may be necessary to reduce their numbers by shooting, trapping or poisoning. Ordinarily they do us little harm, and we rather enjoy having a moderate-sized flock around during the winter, to add the charm of bird life to the premises. The impudent little visitors seem to lose most of their natural fear of human beings, and they often alight almost at our feet when we throw wheat out to the chickens. They are made welcome to what little they take. The poor things have to live, and they destroy a good many weed seeds and insect eggs or cocoons during the dormant season.

If it becomes necessary to poison them, they may be baited with wheat in a place where the chickens or pigeons cannot get at it. Find out how much the flock of sparrows will eat up clean at one meal, and then soak this quantity or less in a solution of arsenic or strychnine, and let them have it.

Sugar Beets or Cabbages

Two of my neighbors at the dinner table in a hotel at Penn Yan (during the fruit growers' meeting) were talking about raising sugar beets and cabbages. One said he was getting fifty to sixty dollars an acre for his crop (five dollars a ton). The other stated he could raise just as many tons of cabbages—Danish Ballheads—on an acre as of sugar beets, with less labor, and usually double the returns. The price received for the cabbages is seldom less than ten dollars a ton, and often much more.

I believe this man is right, to some extent. But he does not take into consideration the vast amount of potash which the cabbages take out of the soil, and the fact that usually we can raise only one cabbage crop on the same piece of ground during a number of years. By proper applications of plant foods we can usually manage to raise a good onion crop after carrots or beets. We will find it much more difficult, however, if not impracticable, to raise onions after a crop of cabbages has been grown on the ground. Besides, much depends on the chances of sale for either crop.

A. Greiner

Fruit Growing

The Beta Grape

D. D., McCook, Nebraska—In regard to the Beta grape sent out by the Minnesota Experiment Station: This variety is of great vigor and hardiness and bears heavily. The bunches are of good size, compact and shouldered. The berries are a little under size; the skin is thin; the juice is quite sharp, but with considerable richness when fully ripe. The pulp separates readily from the seed. It is recommended especially for the average farming conditions in Minnesota, Dakota and the northern range of states where better varieties cannot be grown without being covered in winter, which is not at all necessary in a case of this kind.

I do not know whether the nurseryman you mention has any of the stock from this variety. The Minnesota Experiment Station began sending it out several years ago, and it is quite possible that he has it true to name. The Minnesota Experiment Station does not aim to make money out of the varieties of plants it introduces.

How to Handle Dahlia Roots

J. J. H., Milwaukee, Wisconsin—The best way to manage dahlia roots is to cut off the tops as soon as they are destroyed by frost, as you have done, and allow them to stand until there is danger of the ground freezing hard. By this time some of the surplus moisture will have evaporated, and in my opinion they will keep better than if dug at once. When dug it is generally a good plan to keep them in a dry place for a short time, to allow them to harden off, then place in a box and cover with sand. They will keep very well treated in this way in any cellar where potatoes will keep well.

Sifted coal ashes is practically as good as sand for storing dahlias, and I should not buy sand for this purpose—although I would prefer it—but would use coal ashes if the sand could not be easily obtained. If the sand gets very dry about the roots, I think it would be a good plan to moisten it, but under ordinary conditions, if there are several inches of sand over the roots, this will not be necessary.

Book on Nut Growing

C. C. M., Grand Cane, Louisiana—The most up-to-date and best literature on nut growing, including the pecan, is contained in a bulletin published by the United States Department of Agriculture, entitled "Nut Culture." I think you can get a copy of it through your congressman.

There is a paper on nut growing, entitled "The American Fruit and Nut Journal," published at Petersburg, Virginia, which I think would interest you very much. You can probably get a sample copy of it on application.

Remedy for San Jose Scale

D. H. P., Frostburg, Maryland—It would be quite out of the question, within the limits of these columns, to properly discuss the matter of remedies for San Jose scale. I think you should aim to get in touch with the authorities of your experiment station at College Park, Maryland, and advise with them as to the best treatment for your special case. If you have only a few trees, the chances are that you will get best results from use of some of the soluble oils, but on a large scale the lime-sulphur mixture is undoubtedly the best.

The United States Department of Agriculture has published several good bulletins on this subject, a copy of which you can doubtless obtain through your congressman or by addressing the Department of Agriculture at Washington, D. C.

If you wish me to identify the scale for you, please send a small specimen.

Catalpa Trees for Fence Posts

A. D. S., Coshocton, Ohio—The catalpa will make a very good live fence post for almost any part of Ohio. It has the advantage over many other trees that its roots are rather deep, and hence do not interfere very much with the growth of other plants in the top soil near them, although, of course, any tree has the tendency to retard the growth of agricultural crops in their vicinity—either by shading the ground or by taking plant food out of the soil, or in both ways.

If you wish to grow these trees in a nursery row until they are six or seven feet high, your best plan would be to set

them out about twelve inches apart in rows about four feet apart. There they will make an upward growth much quicker than they will when planted six by four feet, and they will not occupy nearly so much land. When planted six by four feet they will branch and make a big top, while if planted near together they are forced to shoot upward and do not spread much.

In putting wires on a tree it is always a good plan to nail on a piece of wood first, then drive the staples into the wood, since in this way the tree is protected from growing over the wire—which is sometimes very troublesome and may shorten the life of the tree. If the trees are kept cut back after being planted out they will certainly grow more stocky than if allowed to spread freely, but I doubt very much if there would be much, if any, increase in the diameter growth of the trunk due to the cutting back of the top, although they will make more compact and better appearing trees. I do not think the roots of the trees would be influenced very much by setting the trees deep, but in a few years, however set out, would be in about the same position with reference to the surface of the soil, since the roots naturally go where they can get plant food and moisture.

Osage orange would take much longer than the catalpa to make a fence post. It is my opinion, however, that for general farm purposes it would be far better for you, if your land is of good quality, to grow your fence posts in a wood lot by themselves, and then use them as fence posts in the ordinary way, rather than have your farming operations interfered with by rows of trees near the fences. For a line fence I would as soon use white willow as catalpa, and the trees grow faster.

Insect on Grape Vines

R. W. B., Magnolia, Massachusetts—The insect which you sent is a species of lecanium, and is rarely found on the grape vine. The simplest treatment for you to give your vine is probably to trim it back severely and remove any loose bark, and then spray thoroughly with one of the soluble oils prepared according to directions. Among the brands of these oils are Scaleside and Kil-o-scale. This material can be obtained from the seed dealers or directly from the manufacturers.

Samuel B. Green

The Rabbit Pest

The person who is not acquainted with the habits of the rabbit, and judging from his innocent looks as he hops about late in the evening, would not accuse him of being one of the most destructive animals with which the orchardist and the gardener contends. In the garden he is very destructive to the young beans, peas and cabbage, and in the orchard he destroys the apple trees by gnawing the bark from the trunks as high as he can reach. The rabbit seems to have an especial liking for young trees and the trees just set out. The young pea vines and the cabbage may be protected by spraying them with a weak solution of Paris green or some other mixture which the rabbit does not like, but it does not take a very strong solution of Paris green to kill bean vines. I would not risk putting Paris green on cabbage after it begins to head, nor on pea vines after the peas begin to form, as there might be danger of poisoning persons who eat them.

There are a number of remedies suggested to prevent rabbits peeling young apple trees. Some rub blood from slaughtered animals on the bark. This is all right until the blood is washed off by the rains. A very good remedy is to wrap the trunks of the trees with old feed sacks or with fertilizer sacks. They must be wrapped from the ground up as high as the rabbits can reach, and tied securely with twine or cord. A few years ago I set out a young orchard, and it was not a week until the rabbits began to peel the bark from the trees, a few of which were ruined before I discovered that they were being peeled.

I wrapped each tree carefully with newspaper doubled two or three thicknesses, and tied carefully with twine. This proved an effective remedy, and to my surprise the paper stayed on a number of trees over two winters.

West Virginia.

A. J. LEGG.



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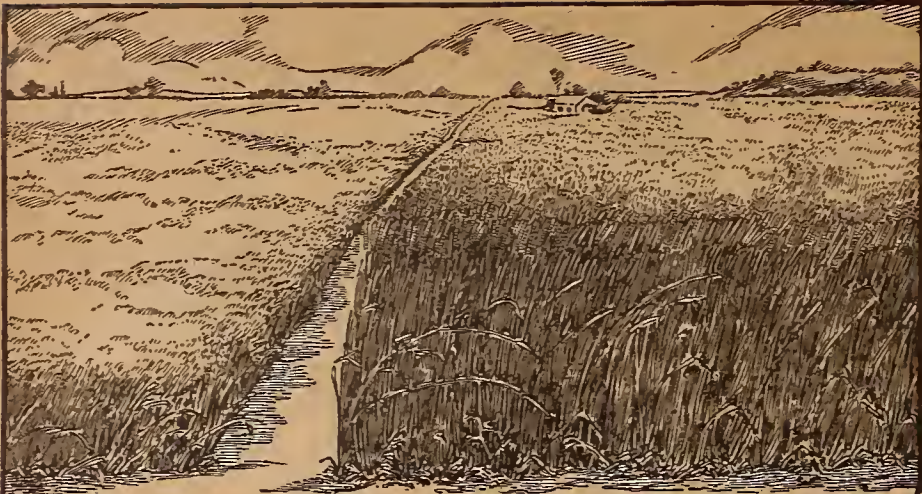
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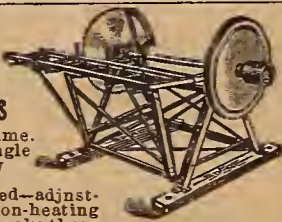
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Live Stock and Dairy

Some Suggestions Regarding Stock Breeding

[CONTINUED FROM PAGE 1]

climate and a bountiful supply of nutritious food from birth to maturity promote growth and development, while a scanty nutrition and a poor climate produce contrary results. It is due to a knowledge of the effects of cold that breeders have been able to produce dwarf specimens. Breeders of Bantam fowls are careful to have their chicks hatched late in the season, so that development may be arrested by the approach of cold weather. The barren, wind-swept islands lying north of Scotland, with their scanty subsistence and short summers, have dwarfed the growth of the horse of that country until he now appears as the small Shetland pony, while ten degrees farther south, on the European coast, in a country whose mild climate gives rise to rich and nutritious herbage and grains, we have developed, from probably the same original, the immense draft-horse of ancient Normandy and Flanders.

But it must be remembered that, according to the law of correlation, we cannot make a decided change in any part of the system without producing a corresponding modification in some other part that is correlated with it. While climate and its accompanying influences have done much to cause the divergence which now exists in races that were once uniform, selection by man has also been actively at work, in some cases, co-operating with the influences of climate, thereby accelerating the transformation, and in others, counteracting its effects.

Sanders, in his work on "Horse Breeding," cites an illustration of this in the horses of Canada. He says, "It is quite evident that the causes that have given us the tough, shaggy pony of lower Canada, if continued without interruption for a succession of generations, and accelerated by the efforts of the breeders in selecting animals for the purpose of reproduction, with the same object constantly in view, would in course of time give us a race as diminutive as the ponies of the Himalaya Mountains or of the Shetland Islands. But this climatic influence has been retarded and counteracted by Canadian breeders who have rejected the smaller specimens for breeding purposes, and have constantly drawn upon the large draft breeds of Europe for fresh crosses. To such an extent has this infusion of fresh blood been carried, especially in upper Canada or Ontario, that the influences of climate have been overpowered and the progression during the last twenty-five years has been decidedly in the opposite direction. The efforts of Canadian breeders in this direction have been aided materially by the improved condition of agriculture in the Dominion which has led to a more liberal system of feeding and more thorough protection from the rigor of the climate."

Improved characters, as the result of variation, can be made permanent by breeding together the animals that possess them and continuing, without variation, the same system of management that originally produced them. Inherited characteristics may for a time antagonize and keep in check the tendency to variation that arises from a change of surrounding conditions, but the latter will, however, prevail unless particular care is taken to strengthen the hereditary proclivity by vigorous and systematic selection.

The fertility of animals is frequently influenced by changes in their surroundings, and which in themselves could not be considered unfavorable to the healthy action of the system. It has been observed that the procreative powers are impaired, or even entirely wanting, in many wild species when placed in confinement. From this we might suppose that domesticated animals are less fertile than wild ones. But this is not true. We must bear in mind the distinction between confinement and domestication. The activity of the reproductive organs is dependent upon the function of nutrition which supplies the materials concerned in their operation. Thus disease of the nutritive organs, or sluggishness, caused by lack of proper exercise, as in case of confinement, or a scanty supply of food, would impair the reproductive function. The small animals, owing to their size, require a shorter time to develop than the larger animals, breed at shorter intervals, and produce a greater number of young at a birth.

Animals do not breed well when excessively fat or very lean, but the breeding powers are most energetic when the animals are in moderate condition, uninfluenced either by extreme fatness or leanness. The greatest fecundity, therefore,

may be expected when the food is sufficient for the wants of the system, and active habits of life conduce to a healthy performance of the various organic functions, but even then we must not lose sight of the influence of the transmission of ancestral tendencies and peculiarities.

"In-and-in breeding" is generally used to indicate the breeding together of animals that are closely related. It appears that no definite rule has been established as to the degree of relationship to which this term applies, but from the term itself we would naturally suppose that it was intended to indicate the breeding together of animals of the very closest relationship. "High breeding" implies the careful selection of breeding animals within the limits of a family, with reference to a particular type, and regardless of relationship. High-bred animals are not necessarily in-and-in bred, although, from the system of selection practised, they must be closely bred to a greater or less extent. Although the practise of in-and-in breeding has its opponents, who claim that it causes a delicacy of constitution, a predisposition to disease, nevertheless the fact remains that all great breeders have followed it to a greater or less extent, and it is supposed for the purpose of retaining and fixing desirable characters, which have been developed by modified conditions.

In order that the term "in-and-in breeding" may be clearly understood, it may be well to give an illustration. Let us suppose that we find a certain male that manifests an unusual degree of excellence along some particular line, and which, it has been found, he usually transmits to his offspring. We couple with him a female having the same tendencies. Possibly the offspring possesses the desired qualities. Suppose this produce is a female, and when the proper age, she is coupled with her own sire, and this produce again, if desirable and a female, is bred to the same male that was at once her sire and grandsire. This gives a good illustration of in-and-in breeding. The same principle often finds its application if coupling the son with his own dam, and then with successive offspring, in a manner similar to that above.

While there are many breeders who claim that in-and-in breeding leads to a weakening of mental and physical powers, there are others who claim that it has refining tendency. Ancient history furnishes us with many instances which support this latter view. For instance, in Egypt, during the time of the Ptolemies, there were a great number of intermarriages, and the magnificent personal appearances, their close resemblance one to another, and the mental vigor and beauty and grace of Cleopatra, would seem to be a strong argument against the theory that close breeding in and in produces mental and physical degeneration. But by looking still further into this matter, it will be found that nearly all of these incestuous marriages were unfruitful, and the opinion of breeders generally seems to be that while in-and-in breeding leads to increased size and vigor in the produce, one of the very first bad results manifested from long-continued breeding in and in, which is the very opposite of violent outcrossing, is a loss of fertility. Just here it may be interesting to quote the following from Francis Galton's "Hereditary Genius." He says in speaking of the Ptolemies of Egypt: "This race of Ptolemies is at first sight exceedingly interesting on account of the extraordinary number of their close intermarriages. They were matched in and in like prize cattle; but these near marriages were unprolific—the inheritance mostly passed through other wives. Indicating the Ptolemies by numbers, according to the order of their succession, II. married his niece, and afterward his sister; IV. his sister; VI. and VII. were brothers, and they both consecutively married the same sister—VII. also subsequently married his niece; VIII. married two of his own sisters consecutively; XII. and XIII. were brothers and both consecutively married their sister, the famous Cleopatra. Thus there are no less than nine cases of close intermarriage distributed among the thirteen Ptolemies. However, when we put them in the form of a genealogical tree we shall clearly see that the main line of descent was untouched by these intermarriages, except in the two cases of III. and VIII. The personal beauty and vigor of Cleopatra, the last of the race, cannot therefore be justly quoted in disproof of the evil effects of close breeding. On the contrary, the result of Ptolemaic experience was to show that intermarriages are followed by sterility. The most obvious objection to in-and-in breeding is the difficulty of selecting

Live Stock and Dairy

animals that are free from constitutional defects, and the danger arising from the tendency of such defects to become dominant in the offspring. It is an important means of improvement when judiciously practised, but the greatest benefit can only be obtained by those who possess the requisite knowledge and skill to enable them to blend and perpetuate all desirable variations. "Crossbreeding" is the pairing of animals belonging to distinct breeds, and may be considered the opposite of in-and-in breeding. We find this system a good one when we wish to improve a poor breed. By ingrafting upon it the characteristics of another superior breed we find the desired improvement in the offspring, not from the fact that a male of another breed has been used, but from the higher breeding and superior quality of the males usually thus selected. If the practise of inbreeding has been kept up for some time unskillfully, so as to cause weakening of the vital forces, it will be found that crossbreeding will give us increased vigor and vitality. This explains why the general farmer finds it most profitable to raise grade or cross-bred stock for the dairy or for feeding purposes. The purely bred races or breeds, as a rule, have been perfected to a wonderful degree in certain qualities, and when the general farmer, desiring to improve his flocks and herds in any of these particulars, procures a purely bred male to use as a sire, even though such an animal may be suffering some of the bad effects of inbreeding himself, the excellence that characterizes the breed to which he belongs, reinforced and reinvigorated by contact with the current of fresh blood that he meets in the farmer's mixed stock, gives a produce of greatly increased value for everything except perpetuation. But the crossing of a superior breed upon one that is inferior cannot succeed in producing marked improvement unless accompanied by better management and more liberal feeding. The use of males of superior quality upon inferior females is advocated by most breeders, being, of course, the least expensive way of improvement. It is denied by most successful and experienced breeders that there is preponderance of the influence of either parent on account of sex. The best-bred animal, however, is believed to have the greatest influence in determining the peculiarities of the offspring. The cases in which the offspring resembles the male are undoubtedly more numerous than the cases of resemblance to the female, for the obvious reason that the males selected for breeding are, as a rule, more highly bred than the females with which they are coupled. The importance of securing males of the best quality, that from their superior breeding will be likely to be prepotent in the transmission of their characteristics, cannot be too strongly urged as one of the readiest means of improvement.

There is one point in stock breeding, which, although of the greatest importance, is too frequently overlooked by those who would not like to be called otherwise than intelligent breeders. I refer here to the great value of a pedigree.

A pedigree is a record or statement of the ancestors of an animal, that serves as a guide in tracing inherited characteristics. In itself considered it is not necessarily an evidence of purity of blood, as animals of mixed blood may have recorded pedigrees, as well as those that are purely bred. But ordinarily records are kept of only those animals which have certain characteristics which distinguish them as a separate and distinct breed, and even then not until its importance as a breed, and wider diffusion, render it desirable that a systematic record be made.

The value of a pedigree will depend upon its authenticity, completeness, and the quality or characteristics of the animals comprised in the ancestry. The name and residence of the breeder and the present owner should be given, together with the date of birth, the color, and other distinguishing marks that may aid in identifying the animals that are named in the record.

To the close observer the form of an animal is a valuable index to its qualities. Any information in regard to the details of the organization of an animal, which determines the qualities that are of value in the economy of the form, as the disposition, nervous energy, muscular strength and activity, quality of flesh, proportion of valuable carcass, activity of the processes of nutrition, and strength of constitution, in addition to what we may get from a study of their ancestral history, must be gained through the indications presented in the external form that are manifest to the sight and touch.

Every part of the external conformation

should be associated in the mind of the breeder with the correlated peculiarities of structure that give the greatest value to the animal for some particular purpose and thus serve as an index to the many important characteristics that might otherwise escape attention. The thorough knowledge of animals that enables a person to form a correct opinion as to their characteristics and qualities cannot be gained without practical training and experience, and the management of our stock shows and county fairs should see that the breeder and exhibitor has a "square deal" by employing competent men as judges, for without years of experience one cannot judge an animal correctly from form alone, and that is the chief guide that the judges have at our ordinary exhibitions. All animals belonging to the best developed meat-producing breeds have essentially the same general characteristics and form, and a corresponding similarity prevails in their correlated structure. The following characteristics are of special importance, namely:

1. A sound constitution is indispensable in the feeding animal, whose powers of nutrition are taxed to the fullest extent in the rapid conversion of the large amount of food that is required in successful feeding.

2. Good feeding quality or the ability to fatten rapidly at an early age, and return the largest profit for the amount of food consumed.

3. The flesh should be of good quality and the carcass should furnish the largest possible proportion of choice parts, with a corresponding diminution of the parts of little or no value.

4. The general outline of the body should be rectangular, giving the form of a parallelogram when viewed from the side, and of a square when viewed from before or behind, but the angular parts of the body should be rounded and smoothly blended with the general surface.

5. An excessively long body, without corresponding depth and substance, denotes a delicacy of constitution.

6. A low and a remarkably short body, with great depth and thickness of carcass, indicates a tendency to mature early and lay on fat rapidly, and it may be, in excess, in masses that are objectionable.

Following the points above mentioned, let us now turn our attention to the selection of breeding animals. The intelligent breeder will make a rigorous selection of breeding stock in accordance with a well-defined and consistent standard of excellence. The animals selected must be adapted to some well-defined purpose in the system of management, and to the conditions in which they are placed. The most important point in this connection is the adaptability of the size of the animal to the food supply of the farm. The high development of special qualities in our improved breeds, which have been obtained by artificial treatment, have unavoidably diminished their hardiness and unfitted them to withstand the effects of privation and exposure.

All inherited predisposition to disease should be avoided and the best sanitary conditions should prevail in the system of management. In rearing young animals a great deal of care must be exercised, and sometimes the breeder must go to considerable trouble with the offspring in order to promote good health and rapid growth. In horse breeding it sometimes happens that the milk of the dam is quite insufficient to maintain vigorous growth in the young foal, and occasionally it becomes necessary to raise a foal entirely independent of the dam. In such cases the best possible adjunct or substitute for the milk of the dam is cow's milk. It should be sweetened at first, as the milk of the mare has a richer sugar content than that of the cow. The colt may soon be taught to drink milk readily, but care must be taken not to give him too much at a time. A half-pint is sufficient for a colt two or three days old, but the ration should be repeated often—not less than six times a day—the idea being to give the colt all it will drink, but to feed so often it will not require very much at a time. As the colt grows older the amount should be increased, and grass, with oats, should be added as soon as the colt is old enough to eat. No ration is better for a colt than cow's milk with these adjuncts.

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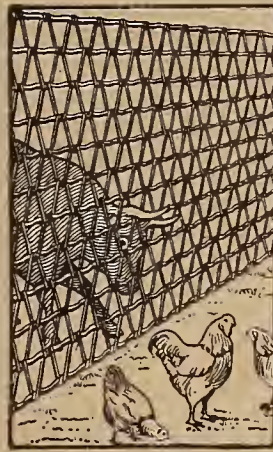
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Poultry Raising

Incubators Again

THIS is a good time to operate incubators, and every farmer should have one if he expects to derive the most from poultry during the early portion of the year. The incubator is used at a season of the year when the hen is of little service in the way of hatching. She lays the eggs, but seldom sits and successfully cares for a brood in winter. The most favorable period for her during incubation is from April until in the summer. No one can induce a hen to incubate, and as there are times when this independence on her part may be fatal to the interests of her owner, it is a serious drawback. It is then that the incubator can be drawn into service and made to do duty.

The hen will always be a necessity, for she must lay the eggs, but she cannot be controlled in the matter of incubation as can the incubator. The hen can, after the severe cold of winter is over, hatch and rear a brood with less care and anxiety to her owner, especially if grass and insects are plentiful and her quarters are kept clear of vermin. She will hatch nearly all the fertile eggs, and carefully hover her brood until the chicks are large enough to help themselves, and she will also work and find a large proportion of food required by her chicks, thus reducing the cost. Hens, however, differ, just as do individuals among animals, and some of them will leave their eggs before the period expires, crush the eggs in the nest, trample the chicks to death in the nest, and kill every chick that strays into their broods. If a hen hatches and cares for a brood in winter the chicks cannot be hovered when they attain a certain size, and she will be fortunate if half of her brood survives without more extra care from the owner than he can afford to bestow, especially when the snow is on the ground.

The incubator can hatch the chicks at any time desired, and a large incubator will do the work of forty hens at a season of the year when it is impossible to find that number of hens to incubate. The chicks can easily be brooded and cared for under shelter in large numbers when the care of fifty hens and their broods would entail great labor and care.

Feeding in Hoppers

It is claimed that recent experiments at one or two experiment stations demonstrated that, in comparison with different methods, the largest number of eggs was obtained when the food was placed in hoppers and given in dry condition, the fowls being allowed to eat as much as they desired, and at all times. There was also a saving of labor, and with varied food the hens did not become too fat. It is possible, however, that certain conditions affecting the fowls under experiment may not affect them in other cases, but the results are of a character to warrant the method of feeding being tried by all farmers and poultrymen, so as to give hopper feeding a fair test.

Any method known for forcing the hens should be adopted, as it costs but little to replace a hen with another. The use of red pepper and condiments will not force a hen to lay, nor is there any known process other than good management—that is, warm quarters in winter, varied food, exercise, and all the conditions for comfort favorable. Even then it is not "forcing" the hens, for if they are kept under conditions for producing eggs the result will be natural, and the hens will continue to lay without being injured thereby or retarded in the least. When one undertakes to force his hens he will have nothing to fear, as the hens cannot be forced to violate natural laws. Before they can produce eggs they must first reach a stage at which they will be prepared for the work.

Early Orders

If you desire to procure eggs from some breeder of pure breeds, now is the time to order, as the breeder may not have the eggs on hand and must book the order. The cost of eggs from pure-bred fowls is not usually greater than will allow the breeder a fair profit, as it is more expensive to keep special pens of pure breeds for supplying eggs than with ordinary flocks. When eggs of pure breeds are purchased the price paid is not really for the eggs, but for the embryo chicks. It pays to get good stock, as a difference of only one dozen eggs during the year, from each of the fifty hens, is twice as much as the cost of improve-

ment, and the better blood will also give choice poultry for market. Many farmers lose dollars in saving cents by refusing to procure eggs of new and improved breeds, and there is no better time to begin than now. Those who buy eggs for hatching should order, so as not to be delayed.

As to the breed to select as the best, each has its own admirers, possessing certain desirable characteristics peculiarly its own. The breed that may apparently be deficient in some respects may excel in some points that other breeds do not possess. Any two breeds may be selected and compared, and it will always be found that where there is a deficiency in the one it is soon overbalanced by something noticeable in the other.

Lengthening the Laying Period

The earlier the pullets mature, the longer the period they can devote to laying, and it is possible for farmers and poultrymen, by careful selection, to gradually bring the pullets into laying earlier by having them shorten the growing period. The best birds of a breed to keep are those that mature early. The Light Brahmas are large, and require a long time to mature, compared with other breeds, but there will always be one or two pullets that will mature a few weeks earlier than the others. Keep them for breeding purposes, and use their eggs next year for hatching out the chicks, being careful to again select the young pullets hatched therefrom, the earliest in making growth and which are the first to begin laying. In this manner the flock can be so bred as to greatly add to its value. It will also be of advantage to select the males that mature early, and the rule can be applied to any other breed. It requires but two or three seasons to secure advantages from a flock, if selection is carefully made. It matters not if the breed is one that matures in a short period, the selection for early maturity should not be overlooked, provided that only hardy and vigorous birds are preferred.

A Precaution

Do not wait until spring to use precautionary measures against lice. An excellent method in winter, on clear, dry days, is to give the poultry house a sprinkling of a solution prepared by adding a pound of concentrated lye to a boiler of soapsuds, and apply the suds hot on the walls, floors and roofs of the houses. All lice, with their "nits," will thus be destroyed surely and quickly. If kept down in winter the house will be in good condition in spring and less labor will be required to prevent lice from getting the ascendancy.

Fresh Eggs

Strictly fresh eggs (not the cold-storage products) need not be shipped far to market. Some dealers will sell all eggs as "strictly fresh," if they can do so. They carefully "candle" the eggs received, and the majority of customers are unable to distinguish the good from the inferior. But customers will buy the best when they know the eggs to be fresh, and it is in catering to the customer's wants that a trade in choice eggs can be established almost anywhere, and the farmer can sell his eggs with but little difficulty at this season.

The Brooder

The brooder is a great factor in rearing chicks, and brooders are so cheap that to do without one is a deprivation, even if chicks are hatched under hens. A large number of chicks can be kept in a warm room, and can be easily reared to a marketable age with less loss than when given up to the exclusive care of the hens. This has been demonstrated by experiment, and shows why the chicks thrive better in brooders, and grow faster than with hens. It is because the chicks in brooders receive more care and attention, are not dragged through the wet grass and exposed to cold, and are never checked in growth from the time they are hatched until they go to market. A small space under shelter, and well warmed, will allow the keeping of a larger number of chicks to the weight of two pounds than will ten times the same space given up to hens that brood them.

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The Slums of London

By Frederic J. Haskin

THE poor quarter of London is known as the Whitechapel, and this portion of the vast English metropolis is unrivaled as the greatest center of squalid poverty to be found on the globe. No other place can even approach its unparalleled meanness and monotony. Here is a city of more than two million inhabitants, more people than there are in Berlin, Philadelphia, St. Petersburg or Vienna, yet which is so benighted that it has neither a cathedral, a high school, a newspaper office, a book store nor a hotel.

According to recent statistics, ninety-two per cent of the population of East London have no religion at all, and only four persons out of every hundred ever go to church. So far as the investigators could learn, the reason for the failure of the masses to attend service was not caused by hostility to religion, but simply indifference to it. They neither knew nor cared anything about it.

Public spirit is so lacking in this quarter that the authorities make no further appeal to the martial instincts of the people living there. No flags fly over the public buildings, no soldiers are quartered there, and there are no parades of troops through the streets. What is the use? You cannot fire the blood of people who have no reverence for God nor country nor anything.

The same investigators who found that only four persons out of every hundred went to church, also discovered that only one person in every six hundred in the whole of East London was independent of his day's work. This means that five hundred and ninety-nine people out of every six hundred must get up in the morning and bestir themselves in order to satisfy their hunger and provide a roof for the night. It means that all they can get for their day's exertion will provide them no more than this, and that if they fail to work every day they must either beg or steal or starve.

Do you grasp this in its full significance? Suppose you had no credit at all, and the most you could earn by doing your level best would amount to just enough to keep you on your feet, don't you think that the thought of the day when you might get sick or disabled or old would stagger you? If this were all you got in return for doing your utmost, you would not be very enthusiastic about God or country, would you?

The grinding poverty in East London is the cause of all the indifference to religion and patriotism and education. As the home of England's laboring classes, it should be a thrifty, modern community, but instead it is the foulest and deadliest slum in all the world. This result comes from the policy of those early masters of English destiny who decreed that there should be no equality among men; that one man should work and another should enjoy the benefits of his labor. The masters have steadily increased the tasks and reduced the pay of their slaves until they have taken all the grit and hope and cheer out of them.

The divisions of labor under what is known as the sweating system have had a most debasing influence on the lives of London toilers. Formerly the shoemaker went to work with his leather and tools, and the result of his labor was a complete shoe. He could see the article growing under his hand and could feel a pride in his workmanship. Nowadays the task is divided among many workers, and each one is merely a part of a great machine. Trades for women have been so divided that four or five of them are put to work on the task of making even so small a thing as a necktie.

The scale of wages is so low that thousands of instances are found where able-bodied men receive as little as four dollars a week, and among female workers conditions are even worse. Within the last year an effort was made to get a bill through parliament, intended to relieve the plight of the poor laboring classes. The promoters of the measure presented a report which showed that female members of the tailoring, shirt-making and outfitting trades were working for as little as a dollar and eighty cents a week.

It seems that under the system of sweating, a skilled tailor was even charged for thread, to be deducted from her daily wage of thirty-one cents. Other contractors even went so far as to charge their helpless slaves for heating the irons with which they worked. The authors of the report closed their

in the congested quarter, the overcrowding was found to be something terrible.

An able authority on sanitation has reckoned that there should not be more than twenty-five persons to an acre to insure healthy conditions in a community, but in certain districts in Lon-



AN EAST SIDE LABORER

petition with the statement that when able-bodied single women were confronted with the problem of earning a livelihood by serving long hours for such a pittance, they must necessarily lead hard, cheerless lives, but whenever the woman happened to be a widow with children, it was merely a daily fight with starvation which even the bravest could only maintain for a short time.

The framers of this petition to parliament called attention to the housing evils existing among the working people of East London. On account of the long distances and extremely slow methods of transportation, it is imperative for a laboring man to live near his work. Because of the dearth of room

don there are over three thousand people crowded together upon a single acre of ground. Think of that—three thousand people living where there should be only twenty-five! If these wretched slum dwellers were proportionately spread out over the ground where they live, each of them would have little more than one square yard in which to stand, sleep, eat and breathe.

It seemed incredible for so many people to be housed in such small quarters, until it was found that families were letting bed space to roomers, forcing the children to sleep under the bed or elsewhere on the floor. Innumerable cases were found where two or three sets of people occupied the same bed. Thus a

crew of men composing one shift would sleep from ten p. m. until six a. m.; another from that time until two in the afternoon, and a third set from two in the afternoon until ten at night.

Such abuses arose from the practise of hastily erecting flimsy buildings wherever a congestion of working people occurred. Investigation showed that dwellings for the poor had been built over rubbish heaps in such a hurry that the only precaution taken was to level the piles of garbage before starting to build. As soon as the hot weather came on the foul fumes of rotten cabbage stumps and other decaying vegetables buried under the foundations of the structures began breaking through the floors, mounting upward through the stairways, and penetrating all the rooms.

These deadly odors were not so hard upon the men, who were away at work all day, nor upon the children, who could play in the streets, but they worked havoc among the poor women, who could not escape them day or night. Thousands of cases of illness resulted from such causes, and graveyards fattened as a consequence. Of course there were laws against such abuses as this, but corrupt inspectors were kept silent by bribes. The organization known as the London County Council is doing much to overcome such crimes against humanity.

The work now being done by the County Council is the most striking demonstration of the possibilities of public ownership to be found anywhere in the world. Its extraordinary transactions include the building of parks, amusement places and playgrounds for children. While engaged in building a row of city dwellings several squares long, at a cost of millions of dollars, its operations also include such small enterprises as the management of sidewalk flower stands and refreshment booths.

Numbered among its unique enterprises is a municipal boarding house, where several hundred lodgers occupy rooms at a rental of a dollar a week. The cost of meals is extra, the charges being five cents for breakfast, eight cents for dinner and six cents for supper. Most of the inmates of this strange hotel are widowers with children, and the city provides free nurses to look after the motherless charges while the bread-winners are absent at their work.

Its educational bureau provides accommodation for school children without tuition, and without making any charge for text books and stationery. Provision is even made for supplying free meals for poor children, and for furnishing conveyances for crippled children. Included in the course of physical training is a school of instruction in swimming, and every year as many as fifty thousand children are taught the art of taking care of themselves in the water.

The campaign for improving the dreadful conditions of London's impoverished millions is creating much serious discussion. The following indictment appeared in one of the leading papers in England:

"We have to face the fact that the spring of all our social disorder is the divorce of the people from the land. Less than a million souls are to-day engaged in agriculture in this country. Forty years ago, when the population was not more than half what it is today, there were two million country residents in England. This means that the whole character of our race is being changed. We are becoming an exclusively town-bred people. And why?"

"The people are here, huddled together and asking for work. The land is there, delivered over to cattle and deer. It is not that the people will not work, nor that the land is unproductive. It is simply the system of landlordism which severs the people from the soil and drives them into the slums of the cities in order that the country may remain a green solitude to be used as a pleasure ground for the rich. Will the government ever attack this upas tree and tear it out by the roots?"



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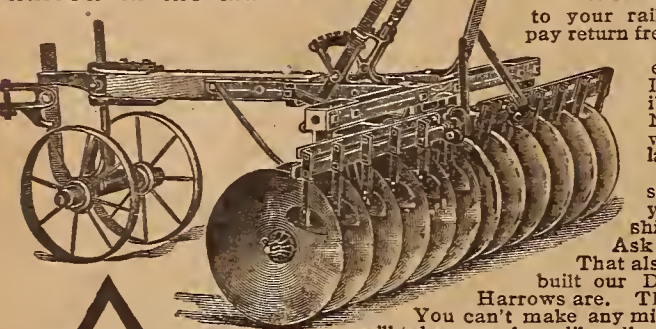
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The Grange

Mortgage Taxation and Interest Rates

FOLLOWING are extracts from the argument of Lawson Purdy, vice-president of the National Tax Reform League, before the joint committee on taxation and retrenchment of the legislature of New York:

"Most people who approve of taxing debts secured by mortgages think that the lender pays the tax. Those who oppose the taxation of debts generally believe that the borrower pays the tax in an increased rate of interest. Many believe that it is in the nature of men and things that every obstacle placed between the borrower and lender, and every burden placed upon the transaction between them, must fall chiefly, if not wholly, upon the borrower. While this argument based on deduction is satisfactory to us and sufficient, we shall prove by statistics from mortgage records the increase in interest rates due to the old liability of mortgages to taxation and to the new annual mortgage tax.

"Prior to last July, in the state of New York, mortgages were taxable, like any other taxable personal property, to each after the deduction of his debts. The net personal estate of each person was taxable at the full local tax rate for all purposes, and the rate varied from about one and one half to three per cent. The amount of mortgages taxed was very small. Those who suffered most from such taxation were the beneficiaries of trusts created by will, who were frequently women and children. In spite of the fact that a very small amount of mortgages was actually taxed, the fear of taxation prevented many from offering money on mortgage security. In consequence the rate of interest was increased about one half of one per cent. An investigation concerning mortgage indebtedness was made for the census of 1890, and the average rate of interest was computed on mortgages in force in 1889 in seventy-nine counties in various states. These included two rural counties in Massachusetts and six rural counties in the state of New York, one city county in Massachusetts (Suffolk, in which Boston is situated), and four counties in New York. The following table shows the average rate of interest on the mortgages in force in 1889 in these counties as given by the census of 1890:

Massachusetts	
Suffolk County	5.03
(City of Boston)	
Massachusetts	
Franklin County	5.51
Hampden County	5.61
Average Rate Two Massachusetts Counties About	5.56
City Counties:	
New York	
New York	5.18
Kings	5.27
Erie	5.73
Monroe	5.66
Rural Counties:	
New York	
Albany County	5.88
Allegany	6.12
Dutchess	5.80
Fulton	6.12
Livingston	6.05
Richmond	5.93
Interest in Excess Boston Rate	
New York	.15
Kings	.24
Erie	.70
Monroe	.63
Interest in Excess Franklin and Hampden Rate	
Albany	.32
Allegany	.56
Dutchess	.24
Fulton	.56
Livingston	.49
Richmond	.37

"In 1881 Massachusetts exempted mortgages from taxation, so that most of the mortgages examined in 1889 were made under conditions of exemption. There is certainly no reason for the rate of interest being lower in Boston than in the city of New York, or even in the city of Brooklyn (Kings County), other than the liability to taxation in the New York counties. Other influences being equal, money is always attracted to the larger city in greater volume than to the smaller one, and the rate of interest would actually have been lower in New York and Brooklyn than in Boston were it not for the liability to taxation. But we find that the rate of interest was higher in the New York counties than in Boston by one and one half mills in New York, seven mills in Erie County, in which Buffalo is situated, and over six mills in Monroe County, containing the city

of Rochester. A comparison between the rural counties of New York and of Massachusetts indicates that the liability to taxation has generally a greater influence in the rural than in the city counties. Franklin County, Massachusetts (see table), had 38,000 population, and no cities; Hampden County, a population of 135,000, with three cities, one of them being Springfield, with 44,000 people. Of the New York counties, Albany had a population of 164,000, with three cities, one of which was Albany, with 94,000 people; Allegany County had a population of 43,000, and no cities; Dutchess, a population of 77,000, with one city. The other three counties had no cities, but Richmond County is a suburb of New York, being Staten Island. The New York county which shows the smallest excess of interest over the average for the Massachusetts counties in Dutchess, with an excess of twenty-four per cent, while Allegany and Fulton Counties had a rate of fifty-six per cent higher than the two Massachusetts counties.

"July 1, 1905, a law went into effect in New York State, by which all mortgages recorded thereafter were subject to taxation at the rate of one half of one per cent annually without deduction for the debts of the owner and without regard to the residence of the owners, the tax being payable at the recording office. The effect of the new law is seen in the following:

"The amount of money loaned in 1905 was very little more than half as much as in 1904. In 1904 there was less than a million dollars loaned at five and one half per cent; in 1905 over fifteen million dollars. In 1904 more than forty-four million dollars was loaned at less than five per cent, and in 1905 less than seven million dollars. In 1904 over five million dollars was loaned at four per cent; in 1905 less than one and a half million.

"The new law tends to decrease the amount of money loaned. In the second six months of 1904 there was a slight increase over the amount of mortgages recorded in the first six months, but in the second six months of 1905 the amount was less than a quarter of the first six months and not much more than half as much in the preceding year. Comparing the rate of interest in New York City with Boston, the New York rate is found to be more than a mill higher than the Boston, in 1904. In 1905 the rate in New York had increased nearly three and one half mills, and is four and one half mills higher than Boston. The record of the mortgages recorded during the last six months of 1904 under the old law, the last six months of 1905 under the annual mortgage-tax law, together with the records of mortgages recorded during the same period in Boston and Berkshire County, Massachusetts, furnish conclusive corroboration of what we know must be the tendency of mortgage taxation. The certainty of mortgage taxation in New York increased the rate of interest by one and one half mills in some counties and as much as three to four mills in other counties. The annual mortgage tax increases the rate of interest over what the rate would be were mortgages exempt from taxation, and the increase is greater than the amount of tax.

"The tax discriminates against the owners of encumbered real estate. Improvements are very generally made with borrowed capital, and the tax is an additional tax on buildings in many instances. This tends to lessen demand for building materials and labor and increase rentals. From every point of view mortgage taxation is unjust and inexpedient."

The Observatory

Vermont State Grange presented ex-Governor Bell, the retiring Master, with a handsome gold-headed cane.

R. F. Patterson has been elected to serve the unexpired term of the late State Master Ager, of Maryland.

Col. Allen Ripley Foote, commissioner State Board of Commerce, wrote the law providing for the initiative and referendum in Illinois. He also secured its enactment. He likewise wrote the Public Accounting Law which has returned to Ohio in four years more than five hundred thousand dollars in fees illegally drawn. The law was secured by the State Board of Commerce.

Mary E. Lee

The Farmer in the Gulf States

By A. C. Chase

IT MAY be premised that the illustrations used in the following sketch were obtained in southern Mississippi. The descriptive part belongs both to Mississippi and Alabama, and as conditions and modes of life are largely the same in all the Gulf states—including Louisiana and Texas, as well as the two above named—it may be held to be largely applicable in all.

FARMING POPULATION OF THE GULF STATES

Though they contain a number of large and important cities, the Gulf states are essentially agricultural, their farm product far overshadowing in importance that of manufacturers or trade. It is also worth noting that the increase of population in the cities of these states is not attended with a corresponding decrease in the rural population, as is the case with so many of the Northern states. This would lead us to suppose that the Gulf state farmer is more fully a repre-



THE FARMER'S AIDS

sentative state citizen than in some other communities, which is indeed the case.

It is true that the farming population of these states is made up of whites and negroes, and the latter class is the larger numerically, constituting about sixty per cent of the total. But the former controls fully seventy per cent of the farm acreage, and over sixty per cent of the farm property. The farmer referred to in this article is of course the white man; and, furthermore, he is the white man who stands for all that is best in the state and the South.

Now, no one can understand life in the Southern states—its conditions, advantageous or otherwise its limitations or its possibilities—who fails to remember to what an extent it is still a pioneer community.



IN SOUTHERN WOODS

There are enormous sections of land throughout all of the Gulf states which are still unbroken soil, and millions of acres yet covered with virgin forest. There are probably less than half as many inhabitants to the square mile in Alabama and Mississippi, for instance, than in the average farming section of the North. And when we remember what a large proportion of these inhabitants are negroes, we can partially imagine the isolation of the white farmer's life here. And yet, in spite of his separation from society as it is understood in centers of population, he is probably the most contented rural dweller in the United States.

THE SOIL HE TILLS

The farmer of the Gulf states has a wide choice of locality and soil. Perhaps he farms in the flatwoods section, or the long-leaf pine region; perhaps on the uplands of the prairie section; perhaps on the heavy bottom lands. These situations vary widely in native productiveness, of course, but it may be said that all soils are good if the farmer knows how to work them. In the pine region, known here as the "piney woods," the surface soil is the thinnest of all; yet even here a fair degree of productiveness can be secured by the



"THE BIG HOUSE"

use of fertilizers. The soils of these states may be divided into four general classes: The black loam of the river valleys, the brown loam of the tablelands, the sandy loam with clay subsoil, and the yellow loam mixed with clay. Modifications of these types of soil are also found. The yellow loam is very abundant, and this is the "worn-out soil" so execrated by Northern settlers. It is "worn" by rains, the washing of all the humus from its surface having caused its barrenness. If this humus can be restored by the turning under of green crops, it becomes productive again. In other cases, the turning up of the subsoil to the action of light and air redeems the land once more, wherefore the method of deep plowing, hitherto quite unknown to Southern agriculture, is strenuously advised by many. Wherever an adequate system of



A SOUTHERN PLANTER'S HOME

renovation of the soil has been practised, it has been fully justified by results, and this the native farmers have frankly acknowledged, although themselves slow to introduce the better way.

THE CROPS HE RAISES

The farmer of the Gulf states may be exclusively a cotton farmer, or he may raise grain alone, or he may give his time, effort and capital to "trucking"—that is, the raising of vegetables for shipment—or to fruit raising. Usually I find he raises a good deal of cotton, a little corn and hay for his mules, some vegetables and fruit for the family table—and nothing more. Generically speaking, he is not a wise farmer, and the secret of making every part of his farm pay by diversifying his products, he has not yet fully learned.

The tendency of this farmer to concentrate all his



COTTON-PICKING SCENE NEAR TUPELO, MISSISSIPPI

plans and hopes around his cotton bales has been so sharply criticized in recent years that I need not dwell upon it. The reasons for this are palpable. Cotton is the best "cash crop" that can be raised; it is always in demand. The labor of finding a market for fruit or vegetables, even for hay and corn, is often considerable, but the cotton buyer is always at the farmer's elbow, as it were, with ready dollars in his hand.

Moreover, though cotton requires an enormous amount of labor for its cultivation, which costs more and more each year, and though the plant is especially susceptible to injury from unseasonable weather, insects and disease, it is yet the easiest crop for the farmer to raise on a large scale. This is because the labor on which he must depend for all his farm work is more available and adaptable in the cotton field than anywhere else. The negro is only half a laborer in the cornfield; in the field of small grain, truck patch and orchard he is so inefficient through ignorance and



WATERMELON TIME

unsusceptibility to new ideas that he is worse than useless. But he has worked in the cotton field from his pickaninny days, and there he is at home and useful.

THE GULF STATE FARMER'S HOME

In his home our farmer dwells literally under his own vine and fig tree. The huge tendrils of the muscadine grape enwrap the oak trees in the front yard, while fig trees loaded with purple fruit in their season grow here and there by the fence. The percentage of native-born citizens in these states is large, and the home of our typical farmer has probably been his birthplace, and perhaps the birthplace of his father and his grandfather as well, wherefore he clings to it with



FAMILIAR STYLE OF ARCHITECTURE

a sentiment quite incomprehensible to the easily transplanted resident of later-settled states. The affection with which he regards his old home and all of its surroundings has its roots in a thousand happy childish memories, and may well dread the wrench of removal.

This old home is perhaps built in old Colonial style, with lofty pillars in front reaching to the second story. Or it may be an old-fashioned low dwelling, built in two parts connected by a corridor or gallery. Again it may be a house of more modern type, with a large bay window and a veranda (here called a gallery) along the side. Or yet again it may be an old plantation mansion of the palatial type. The large square mansion shown among our views of farm homes is the famous residence "Annandale" in Madison County, Mississippi, now the property of a wealthy gentleman from the North, by whom it has been repaired and restored to all its former beauty.

The interior of our farmer's house, whatever its exterior outline, is ceiled with hard pine if its owner is a man of modest means; but if he has some pretensions to wealth, it is finished with hard plaster, and papered. The distinctive feature of the house, be it

[CONCLUDED ON PAGE 26]

The Strange Adventure of Helen Mortimer

By Maude Roosevelt

Synopsis of Previous Chapters

"An old lady going abroad wishes a young woman to act as traveling companion; must not be over twenty-five, and be able to speak French."

Helen Mortimer, a poor New York girl, gets the position. Mrs. Harold Pancoast, her employer, entrusts her with a small steamer trunk, the contents of which are of great and mysterious value. Mrs. Pancoast fails to put in an appearance, and Helen sails alone. Helen makes the acquaintance of Mrs. and Miss Watson, the latter of whom absorbs much of the attention of one Guy Halifax. A George R. Barrington forces his attentions on Helen, and Worrendale, another character, seems to be in league with Barrington. A telegram containing a London address is stolen from Helen's stateroom by Madame Patrie. Charles Lawson, a spendthrift, introduces himself to Helen. Halifax helps Helen to the train, and then leaves to look after the Watsons. Barrington took the same coach, and when Victoria was reached, he helped Helen to a carriage and asked for her trunk check. Helen, suspicious, insisted that he leave his grip and coat in the cab. He did not return, so Helen, in desperation, directed the cab-driver to the address Halifax had given her, and started alone and without the trunk. In the coat that Barrington left Helen finds the stolen telegram. Helen cables Mrs. Pancoast that the trunk had been stolen, and she gets instructions that her employer had sailed. A man named Black attempts to recover Barrington's papers by entering Helen's room in the dead of night. Helen frustrates his plans by wildly firing a revolver and arousing the whole house. Helen gets notice to vacate her room. She starts out in a London fog in search of another stopping place, and is kidnapped by Black. She escapes from the cab, gets lost in the fog, and enters a men's club where she is rudely handled. Worrendale unexpectedly rescues her. They encounter Black as they are leaving the den of vice, and Helen is soon a prisoner in the home of Mrs. Morris, alias Madame Patrie, where they vainly endeavor to locate Barrington's papers. Helen outwits them and is released. She learns Mrs. Pancoast is in London. At the boarding house a Mrs. Featherstone takes a liking to Helen and shows her about the city. Helen fears she is being spied upon by detectives, and her life becomes miserable. Helen goes to Paris as an amanuensis of Madame Durozzi, or Mrs. Featherstone as she is known in London. Lawson proceeds to show Helen life in Paris, and his attentions become suspiciously constant.

"WE HAD NOW STOPPED before a large jewelry shop, but I protested, and said I would not accept a gift of jewelry. However, he would not listen, and obliged me to go with him into the shop, where he seemed to know the man, and told him to bring out the things he had had set aside in the morning."

"They were three necklaces, one of turquoises, most beautifully set, another of sapphires, and the third and handsomest was a string of pearls that must have been worth its weight in gold."

"My breath was simply taken away, and I couldn't say anything, although I knew I shouldn't even look at them. But he was so enthusiastic and took such pleasure in the idea of giving them to me that I was morally incapable of refusing, there before the salesman who took it so for granted I was to select one. Of course, he praised the pearls and tried to persuade me to choose them, but I could say nothing but, 'I really don't know which I like the best.'"

"Then take them all," said Lawson, "they are so entirely different, you will not find yourself embarrassed by having three, and will be sure to have the one you prefer."

"Bien! that is a good solution of the question!" exclaimed the salesman, delightedly, beginning to replace them in their lovely velvet and satin cases. "Shall I send them to Monsieur's hotel, or—"

"I turned in despair to Lawson. 'Let me think about them,' I said. 'I shouldn't know what to do with three. When I have thought it over, I shall tell you my choice.' At which he laughed, and, taking a pencil from the man, wrote my address on a card, and said, 'Send the three up to this address to-night.' And, turning away as casually as though he had ordered a box of matches, added, 'Come on, now we shall have some tea!' and I walked out of the shop blindly, my head whirling."

"When we were again in the automobile, I said, 'You know I am not going to accept those jewels.' And he said, 'Why not? You're absurd! I always give my sister a present on my birthday, and as she is not here I want you to fill her place; it makes me feel less lonely.'"

"I can't help it, I shall not take them!" I returned positively, at which he looked very hurt.

"Don't you consider me a good friend?" he asked.

"Yes, but I don't consider that friendship entitles any man to make me such gifts. I don't like it, and I think it's a shame for you to spoil our relations in this way."

"Spoil them! What nonsense! If you won't let me treat you as I would my sister then our relations are not very much. I can't understand such narrow-minded prejudice. I like you, I even care for you, so be generous and let me have this little pleasure."

"No, I can't," I said. "If they come up I shall send them back."

"He looked at me silently, and I felt with

shame that he was resenting my obstinacy as ungrateful and stupid."

"You are very cold," he said presently. "I thought by now we were really friends, but evidently I was mistaken, since you are not willing I should show you this little proof of my esteem."

"I don't consider it a proof of esteem," I replied, "it is the first evidence you have shown of bad taste."

"Thank you," he said bitterly. "I am very sorry. I did not think you would misunderstand. I imagined after all the time we have spent together you knew me well enough to accept the attention as I intended it."

"I appreciate your generosity," I returned more kindly, seeing he was really hurt, "but I have never accepted valuable gifts from a man not related to me, and I never shall."

"Well, let us be related," he said, laying his hand on mine. "Let us be engaged, shall we?"

"Girls, I can never tell you the shock this was to me! I felt so stunned I could not speak, but fortunately the car stopped at that moment before the Palace Hotel, and I was given time to collect myself as we entered the turning door. In the inner hallway Lawson said something to one of the liveried servants standing there and we were led into a small private room, where the servant, after receiving his order and a tip, left us."

"It will be nicer here than in that crowded place," said Lawson, leading me, over to a sofa, "especially as I want you to give me your answer; will you be engaged to me, Helen?"

"I don't know really what I replied, for I spoke involuntarily, but presently I felt his arms about me, and I was so happy that the very world seemed to sink out of existence."

"Well this is how it happened; and I am now engaged to Charles Lawson! What do you think of it? It seems almost too good to be true, for he is such a dear, generous fellow, and not at all like what I expected him to be. It just goes to show how a man can get a bad name and have it cling to him, and prejudice strangers."

"That day was the happiest of my life, until I got home, and he left me with many regrets that we were obliged to be parted the first evening of our betrothal. But it was not by this my happiness was dimmed, for I knew I should have him the next day and always afterward. But when I entered the apartment the maid said Madame D. wished to see me in her room immediately, and I went to her fearlessly, not caring much whether she meant to do fault with me for being so much with Charles or not; oh, it is so lovely to feel one has a strong man to depend on!"

"However, my courage was blasted when I learned the reason for which she had summoned me. She was sitting at her desk, and turned as I entered, saying rather coldly, 'Ah, you have returned, Miss Mortimer? Sit down please, I wish to speak to you on a matter that perplexes me considerably.'"

"I took a chair near her, wondering what on earth could be the cause of her frigid manner, while she put on her glasses and took up two open letters from the desk."

"I received this afternoon a letter from Mrs. Campbell, whom you will perhaps remember was stopping at the house where I met you in London, and as it is entirely in reference to you, I shall read it."

"She then proceeded to read a lengthy effusion, the gist of which was that Mrs. Campbell, the old lady who called my attention at table to the newspaper notice addressed to me, you remember, one evening before we left London, had seen the notice repeated several days later, and had had the audacity to reply to it, stating that an American girl by the name of Helen Mortimer had been stopping at that house; described me, and offered to give all further information in her power, if desired. Did you ever hear of anything more presumptuous?"

"She had received in reply a short note signed Marion Davids, merely thanking her and asking for my address. This she enclosed to Madame D. believing, she said, it was her duty to advise Madame D. of the matter, in case there should be anything of a serious nature in it, for her suspicions had been roused by the fact that she had called my attention to a previous notice in the paper, and I had denied that it was for me, which as you know I did not do."

"Of course, I don't wish to investigate into or interfere with your private life," said Madame D. when she had read me the letters, "but I cannot endure deceit, and you have not been quite sincere with me in this matter."

"How have I not?" I asked. "You never questioned me concerning that newspaper notice."

"No, for I knew nothing about it; but

you told me you were anxious to find this woman who you say gave you money, and in whose employ you went to London. I was interested in helping you, and did what I could; the least you could have done in return, I think, would have been to confide this matter to me, instead of allowing me to learn of it from another."

"I didn't speak of it because I thought it best not to pay any attention to it," I returned, at my wit's end how to explain the situation without betraying all the circumstances, which would of course place me in such a suspicious light she would immediately conclude I was implicated in some affair that would not bear investigation."

"That seems inconsistent with your apparent anxiety to find your friend," returned Madame D. looking at me so searchingly I was afraid she would hypnotize me into telling her everything. Then suddenly I remembered Charles, that he was now my legitimate protector, and that I had nothing to fear from her or any one, since he loved me. The only thing I felt I must do was to keep the story of my connection with Mrs. Pancoast, Barrington and the others, from being more widely known, for I was in dread it would get into the papers and ruin me for life, as no man would want to marry a woman with such a story attached to her, which might never be explained away, especially the incident in that Oakley Street house."

"Why is it inconsistent?" I asked. "I don't know this Marion Davids. She has probably made a mistake, and thinks I am some one else." Madame D. was still looking at me, and her face hardened as I said this."

"You know you don't believe that!" she said. "Mrs. Campbell described you; there certainly could not be two Helen Mortimers, Americans, and resembling one another, in London at the same time!"

"I don't know anything about that," I returned, "but what I do know is that I have never heard the name Marion Davids before."

"Then do you believe the notice was not intended for you?"

"I hesitated, for I knew it would be false to say I did not, and yet to acknowledge that I knew it was meant for me would necessarily open the way for explanations I did not wish to give."

"I can't say that," I returned. "I know nothing positively about it, but even if it were intended for me I don't see why I should pay any attention to it."

"I should think you would consider it obligatory to do so, since you are in that woman's debt; how else can she ever communicate with you?"

"I don't believe she put it in, but if she did, she should not have subjected my name to the publicity I took precautions she should not suffer from."

"Madame D. smiled somewhat cynically. 'Your positions are not quite the same,' she said. 'I must say your indifference in the matter is not very much to your credit, Miss Mortimer, for a debt is a debt, and however unworthy your friend may be you should return the money she entrusted to you.'"

"I grew angry at this, for I knew it to be undeserved."

"I don't think you are in a position to judge, Madame Durozzi," I said, rising. "There are circumstances I can't explain which made it impossible for me to answer that newspaper notice without running great risk. Besides, your present criticism seems rather incongruous, as in the beginning you advised me to break off my connection with the person in whose services I came over from America."

"Certainly, and I still hold to the same opinion, but I never intended to suggest that you should ignore your obligation to her, if the opportunity were offered you to cancel it. There is much in your behavior that mystifies me and I don't like it. This affair must either be cleared up and done with, or, I am afraid, our relations must end."

"Very well, just as you say," I returned, less terrified by the thought of losing my comfortable quarters than I would have been the day before, for now I knew I had some one to look to, whom I could trust, and for the moment did not appreciate all the difficulties likely to follow a break with Madame D. at that time of all others; for it would be decidedly embarrassing to find myself without funds, and have to acknowledge it to Charles."

"The situation was made more difficult after dinner, by the arrival of the jeweler's man, with those necklaces, for although I did not open the box before Madame D. she saw me sign for it, and could not but comprehend it was something of value. I caught her looking at me very suspiciously and when I said good-night, she replied very coldly."

"It was a depressing and ominous ending

to my happy day, for I was very fond of Madame D. and it hurt me deeply, as you can imagine, to have her doubt my honesty and believe me unworthy of the trust she had put in me. In my room I opened the jewel box and took out the three beautiful necklaces, and every worry faded from my mind as I looked at them and realized they were the betrothal gifts of the man I am to marry, and who has become so dear to me that Halifax is almost forgotten. I say almost, for I don't believe I can ever quite forget him. He had some qualities I have never met with in any other man, not even excepting Charles, though he has others to make up for them. I know I shall be very happy as his wife, for he is so considerate and tender, and he takes so much delight in giving pleasure. Think of it, I shall return to you as Mrs. Charles Lawson! Won't it be lovely, girls? I shall have a home in New York, and a country place where you two will be always welcome, and we shall have some gay old times together! Oh, I know I should be much happier even than I am, but there is something gnawing away down in the depths of my soul that I cannot define or understand. I suppose it is just because I don't dare yet to believe in happiness, it has been so long a stranger to me!"

"Apropos of Mr. Halifax, did I tell you I read in the paper the other day that his father, Lord Haldon, had died? Halifax is now Lord Haldon, and heir to all his father's fortune which, according to the newspaper account, is quite large. Think of that red-haired Ethel Watson becoming Lady Haldon! That is the next news I expect to hear!"

"Well, I don't begrudge her happiness, though I think he is worlds too good for her. But I am happy, and so is Edith, so let E. W. be, and welcome! Next, it will be Mary's turn, and if she doesn't manage it quickly, I shall have to take up the duties of matchmaker as soon as I become a matron! After all, it may be better to wait, Mary, for I shall gather together for your inspection the pick of the matrimonial market!"

"Saturday."

"Well to-day, my dears, the clouds that began to gather yesterday have grown darker, and I feel less happy to-night than I did last. In the first place, in spite of receiving a very lovely note and some flowers from Charles, I was depressed all morning over that letter Madame D. received from the inquisitive old busybody in London. Whoever Marion Davids is, she now knows my address and might drop in upon me at any moment, or if it should prove to be a detective set on my tracks by Mrs. Pancoast I am liable to be arrested here in Madame D.'s apartment, and be disgraced before Charles, and every one. He would probably help me out, but it would require more sublime faith than is possessed by mere man to make him believe that story of the trunk's disappearance!"

"All these thoughts made me very nervous, and I was possessed with another restless desire to get away to some place where no one would know me, and I could see Charles without this constant dread hanging over me."

"At about three in the afternoon, I was sitting writing at my desk in the ante chamber, when the door-bell rang and the rustling of silks told me a pupil had entered. I did not look up at once, as I was just finishing a sentence, and when I did, prepared to utter my customary salutations, who do you think I beheld standing there gazing at me with wide open eyes? Ethel Watson!"

"I stared back at her, wondering what I had better do; and not wishing to give her another opportunity to snub me, I remained seated as though she were an absolute stranger."

"Do you wish to see Madame Durozzi?" I asked formally, and she replied with considerable confusion."

"Yes, I—is she not here?"

"She is busy at present," I said. "If you wish to see her in reference to lessons, I am her secretary, and arrange all those matters for her."

"You; oh!—I think we have met before, haven't we?"

"Have we?" I asked calmly."

"Yes, I think so. Well, about the lessons, of course, I should like to know Madame Durozzi's terms."

"I told her, and she said petulantly, 'Is it impossible for me to see her now? I should like to talk over the matter with her, and let her hear my voice.'"

"If you wish to be heard," I returned, "you can make an appointment. She hears no one except by appointment."

"Can I make an appointment for to-day?" she asked."

"I examined my books, and found there was not a half hour free until to-morrow at four-thirty, which I told her. She accepted it, paid her thirty francs, which

Madame D. requires shall be paid in advance, and departed.

"This visit, as you may well believe, threw me into a turmoil of uncertainty and troubled conjectures. In the first place, if she is engaged to Halifax, why is she pursuing her vocal studies? It doesn't seem natural that she should, do you think? And she had not the happy look one would expect her to have under such conditions. But the feature of the situation which troubles me the most is, that she will probably turn Madame D. against me by relating all that affair at the Oakley Street house, which, combined with the other suspicious elements connected with my life, will finish me with her forever. It will be very unfortunate just at this time, for Charles will think it strange I should be leaving the place so abruptly, and I shall have to give him some explanation.

"Madame D. has been very stilted with me all day, and when I told her I was dining out again with Charles and going to the opera, which would probably keep me late, she said very coldly:

"Miss Mortimer, when I engaged you as my secretary, I did not believe you were the sort of girl to go about continually with men, and I don't like it. Occasionally it is all very well, but this going out every afternoon and evening I cannot submit to; it gives a very bad impression to other people in the house, and I don't care to have it get about that I have a flighty person in my employ, especially as it has been noticed that you are receiving gifts of value and flowers from this man."

"Her manner was so insulting, I flushed with anger, and returned impetuously, 'Madame Durozzi, your insinuations are quite undeserved. I am engaged to marry Mr. Lawson, and in America when a girl is engaged she can go about as much as she likes with her fiancé, and since you gave me permission to do so in the beginning, I believed I was doing so with your approval.'

"This softened her considerably, and she spoke more kindly, and said she was glad to hear of my good fortune, even though I had not thought fit to confide in her earlier, and I could see under her effort to be nice there was a lurking suspicion that I was not telling the truth.

"Oh, girls, I can't tell you how much it hurt me, for I should like to have kept her as my friend; but, as usual when I am doubted, I shut up like a clam, and did everything to increase her suspicions.

"All this threw such a dampening influence over me, that I was very depressed and dull with Charles all afternoon. He took me for tea to a lovely place in the Bois called Avon en Ville, which was crowded with gaily attired women, and sporty looking men; and where a long line of handsome carriages, autos and saddle horses stood waiting.

"Charles asked me what was troubling me, and I told him I had had a slight falling out with Madame D. which he took very seriously, and said, 'I want you to get away from that place. There is no need now for you to hold a position of that sort, since you have me to look after you. On Monday I shall find a little apartment where you shall be perfectly independent, and have your own maid and be comfortable.'

"Oh no, I can't do that,' I replied, 'it wouldn't be right.'

"Why not?' he asked. 'Aren't we engaged? It's absurd! I am not going to let you go on working your life out, while I am here to take care of you.' Then followed a long argument which tired me so I grew impatient, and we ended by his accusing me of lack of trust in him, and my breaking down and crying when we were in the automobile. Of course, he only meant to be kind and generous in proposing the apartment, and argued that as only we two would know he was standing the expenses, no harm could come of it, and he would feel happier to know I was comfortable. But, although this is all true, and probably there is no real wrong in it, the idea is distasteful to me, and I proposed instead that he should take me back to New York. This he said was impossible at present, as there were conditions that made it necessary for him to remain over here until next spring. He was awfully hurt by the stand I took; and said he couldn't believe I cared very much for him, if I hadn't sufficient faith in his judgment to allow him the pleasure of taking care of me, instead of being influenced by stupid conventionalities. And of course he is perfectly right in a way; why shouldn't I trust myself to him now, since I have promised to do so for all the rest of my life?

"I suppose I was a big goose to oppose him, it spoiled the whole day, and the opera, and everything, for he became stilted and cold; and of course I wasn't willing to coax him back to a good humor; so we parted stiffly; he did not even kiss me good-night!

"And to cap the climax of a miserable day, I found in my room a telegram containing these words:

"Telegraph me at once when and how I can see you. Alice Pancoast."

"Her address in London was given, and I know that my hour of reckoning with her has come!

"Well, good-by for a time, girls, for I don't know when I shall be able to write again. Everything has become menacing and dark once more, or at least I feel as if it had. But it may be merely because I am depressed by my quarrel with Charles. I shall write you again as soon as possible, and tell you everything.

As ever lovingly,

HELEN."

Nothing more was heard from Helen Mortimer for nearly two months, and when at last Mary beheld her handwriting it was upon a sealed and registered package. She found it on top of the letter box on returning to the studio one cold December afternoon, when the streets of New York were white with snow, and the sky dark and heavy with another threatening downfall.

As she had promised Edith to let her know as soon as a letter came, she broke open the package before mounting the stairs, and found within a roll of manuscript clearly written on one side of the paper, and numbered, as though prepared for publication. On the first page was pinned a short note which was as follows:

"DEAREST GIRLS:

"I have not had the heart to write you lately, but I have set down everything day by day, just as it occurred, and am sending it all at once, for I knew if I sent you scrappy bits your poor hearts would be in

a continual state of anxiety concerning me, and as I was comparatively happy when I last wrote, I knew silence would be better than tormenting you by giving stray glimpses into my life, which seems indeed to be pre-sided over by some malignant power.

"I have received all your dear letters, though some went astray for a time, and I am so glad you are both getting on so well, and also that Edith got my cablegram during the wedding, as I was so afraid there would be some mistake.

"I suppose you have both been blaming me lately for not writing, but when you read the enclosed you will see I was writing to you all the time. Nearly every night, whatever had happened during the day, I sat up to have a quiet hour with you on paper, except those nights where there were no quiet hours, then I made it up the next day or whenever I could.

"As you read it, don't judge me too harshly. I know I have been foolish and reckless in some instances, but there was so much against me, and I realize now how very, very innocent and ignorant of life I was when I came over here.

"Please take care of what I have written and don't let any one else see it. Write to me soon, and let me know all you are doing.

"Lots of love to you both and to George, as ever,

Affectionately,

HELEN."

After reading this, Mary tied up the package again, and started out once more into the cold, toward Sixth Avenue, where she took a Harlem train for Seventy-first Street. Here she walked over to West End Avenue, and entered the building in which was Edith Newman's apartment, where Mary now dwelt as a welcome and happy member of the little family, adding her mite to the weekly expenses.

Edith was sitting in the tiny drawing-room before a fireplace, where gas logs threw out a grateful glow of warmth. She was busily hemming a white tablecloth that lay partly in her lap and partly on the floor, and presented a pretty picture of domestic happiness.

Her delight in learning that news had come from Helen was no less enthusiastic than it was wont to be before her marriage. Everything else was immediately forgotten; the tablecloth fell to the floor, and not until she had read Helen's preliminary little note, and her cousin had settled herself by the window to read aloud from the bulk of manuscript, did she take it up again to work at while she listened.

"It is dated the very next day to that on which she last wrote," said Mary, "October the fifteenth. The last was dated the fourteenth, wasn't it?"

"Yes, she had just received a telegram from Mrs. Pancoast. Go on, dear, I can't wait to hear." Mary adjusted her glasses and began:

"Paris, October 15th, Twelve A. M.

"Well, girls, my premonition yesterday that the clouds were beginning to settle down upon me again was evidently no idle fancy, as you will agree when you learn all that has occurred to-day.

"In the morning I received a very strange note from Charles, reproaching me with what seemed to me unnecessary bitterness for the lack of trust in him I had evinced yesterday, and going on to say

that it had made him so unhappy he was tempted to go away and never to see me again, for where there was no trust there could be no love! He believed he had given me sufficient proof of how dear my happiness and safety were to him, and the fact that I was unwilling to yield to what he considered right and best for me was a very disappointing evidence of his failure in convincing me of his love.

"After a page and a half of this sort of thing, which was naturally very depressing to me, he added that if what I had led him to suspect were true,—that is, if I did not love him enough to trust him absolutely and under all conditions, he would rather to know it at once, than to exist in a fool's paradise, only to suffer later; and asked me to send him a note by the bearer of his, to tell him sincerely how I felt on the subject and whether I meant to trust him fearlessly or not.

"It is a beautiful, tender little note, but there is something in it I do not like. What this is I cannot define, unless it be the fact that he treats the situation only from his own point of view, and does not consider how it may appear to me. However I wrote him a nice reply, telling him I did trust him absolutely, and that it was only from my ignorance of the world, and perhaps narrow views, that made what he proposed appear so impossible to me. I neither said I would agree to it, nor that I would not, but left it open, hoping I might be able to make him see it as I do when we should be together again this afternoon.

"At luncheon, which was the first moment I had to speak to her, I told Madame D. of the telegram I had received from Mrs. Pancoast, and she advised me to send an answer at once, so I wrote a despatch saying she could see me at any time, or wherever she chose to appoint in Paris, and Madame D. sent the maid out with it.

"Ethel Watson came at half-past four to keep her appointment, and at five Charles came for me as usual in the motor, so I did not see her when she came out from the music-room, for she remained there after the half hour.

"As the music-room looks out upon the avenue, I wondered, as I got into the motor, whether she would be tempted to come to the window to see me.

"An irresistible impulse made me glance up, and there they were both, with the curtain drawn back, watching me. I smiled and nodded to Madame D. but she either was not able to see that I did so from that distance, or purposely ignored it, and before I could make another attempt, we had turned and sped down the avenue.

"It was not the pleasantest drive I ever had, for the same argument came up, and the more he talked about my moving into an apartment, the more objectionable the idea became to me, and his very persistence aggravated this until I had to ask him to please drop the subject. Then he complained that I was not honest with him, and merely pretended to love him, and said he couldn't understand how a woman could engage herself to a man whose judgment she had no faith in; that he was bitterly disappointed, and wished he had never come to Paris, and a lot of other things of the sort that made me feel I was ungrateful, hard-hearted and calculating.

"I tried to soothe him, and said everything in my power to show that my love was real, and that it was owing to no lack of faith in his judgment that made me decline his offer, but that I knew I should not be comfortable under such conditions.

"I cannot explain to you girls, the strange change that came over my feeling for him during that drive. There were tones in his voice I had never heard before—harsh, impatient tones that seemed very out of place when the subject under discussion was supposed to be for my happiness, and not for his.

"However, by the time we returned from the Bois and stopped at the Palace Hotel for tea, he had regained his usual sweet good-humor, and as I said I should prefer to sit where I could watch the people, rather than go into a private room, he agreed to do so and selected a little table right on the entrance aisle where we could see every one who came and went.

"After we had talked of other things for a time, he said suddenly in a significantly serious way:

"I am going away to-morrow, Helen."

"I looked up in astonishment and said, 'Away? Where to?'

"Oh, to Nice or somewhere out of this. I hate Paris, and it is getting beastly cold."

"There was something in his manner that cut me to the quick, a sort of intentional indifference as to how this intelligence might affect me.

"But I thought we were to go to St. Cloud to-morrow," I said. 'Have you forgotten you promised me?'

"No, I haven't forgotten, but I don't think there would be any pleasure in the trip for either of us now."

"What do you mean?" I asked, for I really could not understand what made him say such a thing.

"Oh I know," he returned with a little laugh, 'that as soon as I plan a little trip out there you will want your Madame Durozzi or some one to go as chaperone. I tell you this lack of confidence you show is a new experience for me, and I don't like it in the least;—it has spoiled our relations!'

"Do you think it is wise to return to that subject?" I asked, feeling myself grow cold, and he replied, 'I think it is wise to have an understanding now, before it is too late. We evidently don't understand each other; or rather you don't understand me. I can't be satisfied with half measures, and I can't believe in your love unless you are

[CONTINUED ON PAGE 17]



"You are very cold," he said presently. "I thought by now we were really friends."

Rafe, The Rubber Gatherer

By Frank H. Sweet

CHAPTER III.

AS THE door closed behind him, Rafe felt his head begin to whirl, and he reached out to grasp something for support. The smoke filled his eyes and blinded him, crowded into his nose, his mouth, through his very skin, he thought, it was so thick and pungent and nauseating. He tried to breathe, but only strangled and began to gasp; all his blood seemed to be rushing to his head; for a moment he believed himself to be dying. But he did not attempt to open the door. That would have been defeat.

Then he remembered that smoke ascended, and that it was probably denser in the upper part of the hut. He threw himself flat, pressing his face close against the earthen floor. Almost instantly he began to feel relieved. The sense of suffocation departed, and by placing his open hands on each side of his face he could draw short, gasping breaths. The smoke was down there, thick, fetid; but it was not the dense, stifling mass which blackened the atmosphere a few feet above the ground.

Gradually his eyes became accustomed, somewhat, to the smoke, so that the blindness and smarting became less acute and he could open them and gaze about a little. At length he raised his head a few inches, but dropped it again almost instantly. It was a half hour before he could raise it and see well enough to look around.

It was not quite so black as he had expected from his occasional brief glimpses through an open door. This near the floor he could see several yards away, indistinctly; and—yes, there was old Juan grinning at him mockingly. He shut his eyes and opened them again, winking several times to clear his vision. Yes, that was Juan, holding his wooden blade with its ball of coloring gum, and twirling the ball so that all sides should have a share of the black smoke that was pouring from the top of the earthenware chimney. But the old man was looking at him. Through the rising, eddying smoke the leathery old face looked almost demoniac in its grinning derision.

"Mighty nigh cotched you, didn't it?" chuckled the old man. "If you hadn't 'a' drapped jes' de minute you did, somebody'd 'a' been haulin' you out 'bout dis time 'an' frowin' water in yo' face, sho'—dat is, if de overseer hadn' been eroun'. If he had, nobody been a-bodderin' wid water, nor haulin' you out, mebbe. Dat ain' de overseer's way. He, he! But come spell me wid dis han'le. I se dat full o' agey misery it 'pears like I se goin' be disj'inted all de time."

Rafe rose to his feet slowly; but as his head entered the thicker smoke he dropped quickly upon his hands and knees, and in that attitude crawled to the old man, where he rose cautiously in a crouching position until he could grasp the handle extended toward him.

Juan chuckled again. "Go slow, an' be sure," he said approvingly. "Dat's de right way. I been 'fraid no help be foun' for me. Overseer say no hab man; dey's too sca'ce; must hab boy. But dere be fo' boys here in one week. Two fall down an' be haul' out, an' two fling open de do' an' tum'le out almos'. fore dey get de do' shet. You de fust boy dat stay long 'nough to hol' dis han'le."

Rafe looked at the old man curiously. At first he had thought the face the most forbidding he had ever seen, weazened and drawn out of shape by age and disease, and discolored by its long years of smoking; but already the grotesque, almost repulsive, features were being softened by the not unfriendly voice. During his two months in the forest the boy had not met with a single friendly or pleasant greeting, and even old Juan's grins, if not his words, were full of mockery and derision. But something in the mockery of the grins and words made the boy's lonely heart leap out in sudden friendliness. His eyes were still burning and half blinded, and his throat and lungs so full of the smoke that he strangled and gasped and found it difficult to catch

his breath. He even wondered how he had managed to live until now, and how much longer he would be able to exist. And yet in the face of all that, and with the conviction that his chances for life in this hut were small, he was glad that he was here, instead of outside, as he had longed so wildly to be a short half hour before. This man, who spoke not unkindly, would be a sort of temporary master now, and the overseer would be rarely encountered, for he, like the other open-air men, had a horror of the inside of a smoke hut. It would be well worth all risks and discomforts to find a possible friend in the midst of the camp's indifference and hostility.

"Not dataway! Don' you hol' it like dat!" suddenly screamed Juan, as Rafe, gasping and with his eyes shut, allowed the end of the pole to drop down below the mouth of the chimney until it almost touched the smoldering nuts. "You goin' stroy my name, when I been knowed for thirty year as de bes' smoker all up an' down de ribber. See, you hol' like dis, an' you twis' like dis, an' you stand like dis." And, seizing the pole again, Juan illustrated the proper way with wrathful eyes and terrifying contortions of his grotesque features. "You goin' stay 'long me, you mus'n' t'ink not'in' 'bout how you feel, or 'bout t'ings goin' on eroun', not'in' but jes' dat bunch o' sap on de steeck an' de smoke wrappin' up eroun' it. If you feel seeck, if you t'ink you dyin', dat no matter; nor'in' matter 'cep' jes' dat sap an' de way it goin' be color up. I been feel my j'int's pull c'lar out an' pus in, an' I ain' stir, c'a'se de sap needin' my 'tention. If you goin' be smoker, you ain' goin' hab no min' for not'in' else. Better you drap down like t' udder boys 'cep'n' you ready for dat."

"I shall not forget any more," replied Rafe, opening his eyes resolutely and rising a little from his crouching position. "I did not understand, and the air would not come when I wanted to breathe. If I must be a smoker, I want to be the very best, and I shall try not to remember that I can feel pain like those who do not smoke. Now you may let me have the stick again. I shall not forget."

But Juan hesitated, although his muscles were twitching with pain and his aged limbs trembling with weakness. He could see that the boy meant well, but he could not bear the thought of jeopardizing a reputation as the best smoker along the river. No piece of rubber had left his hut for years that was not as perfect in coloration as the art of a smoker could make it, and so long as he was the master of the hut all rubber that left it must add to or mar his reputation. And this was no small matter. Although the overseer ordered him about with an abusive torrent of words, as he did the other laborers of the camp, both well understood that the owner of the grove would sooner lose his overseer than his master smoker.

"I s'pose mebbe you bes' watch me some longer," he said. "If you hol' too much one way, or twis' de leas' bit wrong, den dere goin' be some change color, an' dat bad, b-a-d. Mebbe you stay here ten, twenty, forty year, you be good smoker den. But you got learn feel wid your eyes an' see wid yo' fingers, bot' ways." He caught his breath as a sudden spasm of pain made one of his arms quiver and fall almost helplessly to his side. The pole would have fallen, but he caught it so dexterously with the other hand that the ball of sap scarcely trembled. "Jes' one o' my disj'intin's," he explained through his clinched teeth. "Dey been wuss lately. Mebbe you bes' take hol' dis han'le a minute. But you do it jes' like yo' been see me."

He relinquished the pole into Rafe's grasp, but kept his own hands upon it until he saw the boy was holding it firm and steady. Then he sank down upon the earthen floor, but in such a way that he could spring instantly to the boy's side in case of need. Rafe could see the old man's limbs jerk and quiver with the intense agony, but the gleaming eyes never left the ball of sap in the midst of the funnel of smoke. "Twis' a lit'l' mo' dataway," he cautioned. "Now keep him goin' roun' an' roun', steady. Mebbe you learn queeck, like me. I do forty year learnin' in two, t'ree day; den keep on findin' out mo'. But no udder smoker eber learn dataway, dey tell me. Smoke is grown up in my blood when I se a pickaninny. My fader raise me in place like dis. O-o-gh!" as a still sharper attack twisted him into an agonizing knot and forced this slight protest from his unwilling lips. "I se feared I se goin' lose myse'f for a lit'l' bit, my haid's dat strange. But don' you take yo' eyes off dat sap ball, not if yo' die two, t'ree times while hol'in' de pole. I be eroun' he'p you 'fore long. But now I se goin'—lose—myse'f—for—a—li'l'—b-i-t."

His head sank forward upon his chest, and his features, which had been convulsed into an expression that under other circumstances would have been absolutely horrible, gradually relaxed. Old Juan was unconscious.

Rafe's first impulse was to go to his assistance—to bathe his face and take him out into the air. But he did not yield to it. Old Juan's indomitable will was already exerting its influence. An hour before, that mass of sap on the end of the pole would have meant nothing to him as compared with the unconscious figure on the floor. Now he glanced anxiously at the heap-up form, and then gave his undivided attention to the coloring of the sap. That was part of old Juan's reputation, and the least neglect of it would be a blot upon the master smoker's name. The worst injury he could do to the old man just now, he well knew, would be to look after him and neglect his work.

But it was the hardest thing Rafe had ever done, harder than going through the forest by night, harder than bowing his head to the overseer's punishment. Yet in a way it was a good lesson for him, so long as he continued to be a smoker. Never again, after this ordeal, could any outside matter, any personal pain, take his attention from the ball of sap constantly revolving in the uppouring column of smoke. That, as the paramount object of solicitude, had been indelibly impressed upon his mind.

Not once did his gaze leave the ball of sap rubber now, and slowly, steadily, like clockwork, the pole turned in his hands. His eyes burned like fire, and his mouth and throat and nostrils felt like dry, crackling parchment. More than once everything began to grow dark, and he crouched low upon his knees; but he did it in such a manner that the sap ball should not waver, and soon he again rose to his work.

At length a slight stir drew his attention. Old Juan had again opened his eyes, and was regarding him, at first blankly, then with awakening intelligence, and at last suspiciously, critically, approvingly. Finally the older man rose slowly to his feet and came forward, taking the pole from Rafe's hands. Then he drew the ball from the smoke and examined it minutely.

"Jes' de right color," he concluded, "an' been dip plenty time to be t'ick 'nough. You do berry well, an' make smoker sometime, mebbe. Dis ain' goin' hu't ole Juan's name. Now we cut it off de steeck an' dip some mo'."

CHAPTER IV.

WHEN the mass of crude rubber was removed, old Juan dipped the stick into a calabash of sap that stood at convenient distance to the fire, and again held it in the smoke. When it was sufficiently colored, it was once more dipped into the sap and returned to the smoke; and this was repeated again and again, until the new mass was thick enough to be cut away also.

Part of the time old Juan held the stick or pole; but mostly Rafe did this, while the master smoker either stood or crouched near, his face and limbs twitching with the pain that was torturing him, but his gleaming eyes never leaving the sap ball in the smoke.

"You do berry well," he would say, "but you able to do better. Tu'n it a lit'l' dis way; dere dat's it. Now lif' it higher, so de smoke can curl eroun' de sides mo' even—yaas; now lower it down to de black smoke for dat side. Dar' mus'n' be no unevennesses. O-o-g-h, dat shoul'er! I been cut de arri off if 'awan' for losin' de hol' on de han'le. Arms dat full o' misery ain' no 'count 'cep' to hol' on to t'ings."

"Maybe I could do the smoking a while," Rafe suggested, "and you go lie down?"

The old man threw back his head. "An' hab my name hu't?" he cried indignantly. "No, no; you berry good; but you ain' learn in one day. Sometime, mebbe, I let—let yo' work by yo'se'f, but it be long time, yet. An' dere's anudder t'ing," lowering his voice. "De overseer hate me, an' if he fin' out I se sick he goin' write to de owner to sen' on anudder smoker. Don' you see dat goin' put me out altogether, for de overseer know how fix t'ings so I nebber get back. But lon's I se well he don' dar', for de owner 'pend mo' on me den on de overseer. He know dat. I been work right in dis hut mo'n thutty year, an' ain' nebber lose a day. an' he only been here two year." The old man was silent for some moments, then continued, with an unconscious plaintiveness in his voice: "I been had a feelin' lately dat de misery ain' got its bes' hol' on me; dat I se goin' to be laid out flat bimeby. An' I se been mighty skerced t'inkin' dataway till jes' now when I come out de misery an' see you a hol'in' on de steeck like you was a fac' sure smoker. Den I say to myse'f if dat boy learn right an' queeck, mebbe he be ready when I se laid out in de corner here to do de smokin' till I se better, an' de overseer nebber know a t'ing 'bout it."



"'Mighty nigh cotched you, didn't it?' chuckled the old man"

"But you could never get well in a place like this," declared the boy incredulously. "The smoke would make you worse. If you get sick, you must be taken where you can have good air."

Old Juan chuckled. "Smoke de bes' air in de worl' for me," he said. "I been tell you I grow up on dat. If I put in what you call good air, I'se goin' die sure 'nough, it be so strange. No, dat corner dere is goin' be my place if I seeck, an' nobody's goin' know 'cep' jes' you an' me. But I'se 'fraid you'll hatter hurry 'bout learnin', mebbe. De misery's gettin' mighty pussonal an' on-reliable since I done had dat spell."

Soon after this, old Juan was obliged to relinquish the pole and drop in a heap on the floor, from where, however, he continued to watch and give directions. The smoking was continued until long after the camp was asleep. Then, under the voice and eyes of Juan, Rafe cut the last piece of rubber from the "steck," smothered the palm nut fire, and dropped down into a corner for a few hours' sleep.

It had been a hard, long day—if it could be called a day, for the work had commenced early in one night and ended late in another—and, though the real physical labor could not be compared with what he had done outside, the black, stifling smoke and the constant, undivided attention demanded, had made the new work more exhausting than any he had tried before.

But the day had been a success, though perhaps no one but the old smoker could understand something of the strong will and dogged perseverance which had made it so. And indeed, but for the perfect constitution and sound lungs and trained muscles behind, even the strong will would have availed little. Many an expert smoker had been "hauled out" more than once before he had been able to reconcile his lungs to the new requirements, and few of them but could remember a long season at apprenticeship before being trusted with the oversight of the sap stick. Their duties had been for the most part to look after and change the calabashes of sap, pile up the crude rubber after it was made, and perhaps to help cut the balls from the stick as they were smoked. During their moments of leisure these smoker apprentices had a custom of fashioning the rubber, while yet soft, into all sorts of odd and grotesque shapes of figures and animals, as often found in the purchases of crude rubber which reach various countries.

But Rafe did not think of success or of what rubber boys had done or not done before him. It had been nearly forty-eight hours since he had closed his eyes in sleep. Almost by the time his head touched the earth floor he was lost to his surroundings.

Just before daylight he was awakened by an odd thumping from old Juan's corner. Going to him, he found that the misery had "laid him out flat" sooner than he had expected. The old man could not even speak, and apparently had only the use of one hand left, with which he was making as much noise as he could upon the floor.

In spite of the angry protest in the gleaming eyes, Rafe raised Juan's head and tried to make him as comfortable as possible. Then he brought water and black bread and bananas; but the twitching lips closed firmly, with something like a snarl. There was nothing in the hut which could be used as a covering, save some shreds of old blankets. These were brought, and, in spite of the snarl becoming a queer mumbling of almost insane rage, were carefully wrapped about the ague-chilled joints. Then Rafe stood up and looked carefully about the hut. On one of the walls a box was fastened. It seemed to be the only place in the room for small articles, and he went to it and began to examine the contents; a knife, some "luck" bones, a ball of hardened agave juice for cuts, and—yes, there it was—a tiny round box made of tin to keep out the dampness. Along the river it was the custom to include "ague" pills with the men's rations as a possible preventive of the fever which at some period was nearly certain to attack all who worked in the miasmal bottoms. But in Juan's case Rafe had feared the pills might have been thrown away, for in speaking of his illness the night before the old man had said he had never taken any kind of medicine in all his life and that he never should; it was all a humbug. But for all that Rafe took the box and returned confidently to the corner.

"Senor Juan," he said authoritatively, "you must take some fever medicine, a big dose. It will do you good."

The gleaming eyes grew black, and the serviceable hand went up and closed firmly over the mouth.

"You will not? Very well, then. I will not start the fire and commence smoking. I know why you are mad. You want me to begin work. But if you will not do this for me, I will not do that for you. Pretty soon the overseer will come to see why no smoke is rising from the roof." And Rafe squatted calmly upon the ground and began to count the pills in the box. "One, two, three—that is a common dose—four, five—a big dose—you will take six, for you are bad, and you want to get well before the overseer knows." He glanced round at the harsh face. "If you do not, I shall not start the fire. Good," for the hand had quickly dropped from the mouth. Old Juan would take twenty pills of the deadliest poison in the world rather than not have the fire started.

After the dose had been given and the food placed within reach of the hand, Rafe started the fire, dipped the stick into the sap, and was soon at work. Inside of five minutes the hut was so black with smoke that he could not see the recumbent figure



"'Mad, eh?' he sneered, 'an' no speak. Well, 'tain' no matter; only you get him done!'"

in the corner. But an odd mumble, apparently meant for a chuckle, came through the smoke. Old Juan, in spite of his tortured joints, was enjoying the more congenial atmosphere.

Along in the afternoon there came a sharp summons at the door. Rafe was just removing a mass of smoked rubber from his stick, so was able to lay it flat and go to the door himself. The overseer stood there, grinning maliciously, and behind him were two men, each bearing a large calabash of newly gathered sap.

"Hey, you ole Juan!" the overseer called, ignoring the presence of the boy, "come show yo' lazy self."

"Senor Juan is not able to come," interposed the boy. "You know that." He spoke confidently, knowing that a smoker could not leave his work.

The overseer did not seem surprised, but showed his teeth in another malicious grin. "I s'pose mebbe," he assented, "you go tell him, scare boy Rafe, dat—no, tell him myse'f," trying in vain to peer through the black smoke. "Hey, dere, you Juan! You two smoker now, so I bring double lot sap. Bring mo' to-morrer. See you get him all done; 'cep' you do, I goin' write de owner dat you gettin' ol' an' lazy, an' to sen' an' anudder man. Mebbe you work day an' night an' put some time in extra, you get him mos' done. He! he! Juan?" He peered again into the blackness, but with-

out avail. "Mad, eh?" he sneered, "an' no speak. Well, 'tain' no matter; only you get him done. Put de sap inside," to the men; "den you run back to de grove. An' say, better you fly, or you feel my steck."

After they had gone and the door was closed, Rafe went back and finished removing the rubber from his stick. But his face was grave. Presently he went to the corner and bent over the old man. Juan's hand was now lying inert and passive, and into the gleaming eyes had come a dull hopelessness and despair. He had heard what the overseer said, and realized only too well that an inexperienced boy could not do what the overseer plainly meant should be impossible for both the boy and an experienced man. Things were working into the overseer's hands better than he had planned. But as he saw the utter hopelessness in the old man's eyes Rafe resolutely forced the gravity from his face. "Do not worry, Senor Juan," he said almost gayly; "we will find some way to do the extra work. The overseer shall not get ahead of us so easy as he hopes." But when he returned and dipped his stick into the sap and thrust the sap into the black column rising from the chimney's mouth, and the wall of smoke had shut in between him and the sick man, his face again became grave. The overseer must not get ahead of them, but he could not yet see the way.

[TO BE CONTINUED NEXT ISSUE]

The Strange Adventures of Helen Mortimer

By Maude Roosevelt

[CONTINUED FROM PAGE 15]

willing to trust yourself to me absolutely. If you cannot do this, then we are making a mistake, and you are deceiving both yourself and me."

"Oh, girls, I wonder if you can realize how I felt in that moment! I suffered without knowing why I suffered; every word he uttered seemed to draw a drop of blood from my heart, and yet I did not comprehend their full meaning until afterward. I was appalled by something beyond the words, something that seemed hidden in them, and that something gave a new meaning to his whole attitude."

"I am afraid we are making a mistake," I said, "if this is the way you view our relations. Certainly you cannot expect me to act in opposition to what I think is right, just because it is your wish."

"But I do expect it," he replied. "In a situation of this sort it is only right you should. My judgments are more mature than yours, and I have had the advantage of greater experience; if you are determined to oppose me, we might as well give up."

"I couldn't speak for a moment, being overwhelmed by a sudden comprehension of all his words implied. I simply gazed at him, seeking some reply with which to defy the threat contained in what he had said. But while I looked at him, I saw his expression suddenly change to one of startled amazement. He paled, and his

eyes became fixed on some object just behind me.

"As I turned to see what it was, he sprang to his feet and at the same moment I heard a woman's voice say: 'You! why, what are you doing here? I thought you were in London.'"

"And I looked up to recognize Mrs. Hariman Greeley, to whom, you will remember, he was so devoted on board the 'Cedric.'"

"I only just came over," he said with easy falseness. "When did you get here?"

"This morning," she replied. "I telegraphed you to London, as the letter I got from you yesterday was headed London. Did you come over to-day?"

"Last night; where are you stopping?" he asked.

"Here," returned Mrs. Greeley, then glanced at me and bowed stiffly, adding to him as she moved away with her companion—an elderly man who was waiting a few paces off, "If you are free for dinner, come in."

"Thanks," he returned, and seating himself again, said, as though nothing in the least extraordinary had happened, "I never was so surprised to see any one in my life! What an odd coincidence—three passengers of the 'Cedric' meeting unexpectedly in Paris!" He laughed softly, and took another cigarette from his case.

"Why did you tell her you came over last night?" I asked.

"I didn't say that, did I?" he queried, laughing again, and the laugh went through me like a knife.

"You certainly did," I returned. "It is impossible you could not have known it. She said she had received a letter from you from London yesterday; how could she have done that unless you sent one there to be posted?"

"She made a mistake, that's all—but don't let us talk about her. We were discussing our own plans—they are more interesting!"

"They are all settled," I replied with a firmness that surprised me, for I felt that every bit of strength had gone from me, "and now I want to go home."

"He looked at me steadily, and I felt that what I suffered was revealed in my face, but was determined he should see it in no other way."

"What do you mean?" he asked. "Why do you want to go home?"

"Because, as you have said, our relations are spoiled," I replied as I got up. "They are not only spoiled, but are at an end!"

"He laughed that little soft laugh again, and also arose, saying, 'Are you going to play tragedy queen? Please spare me anything of that sort. If we have made a mistake, let's make the best of it, and be friends. There is no harm done, is there? We have had a nice innocent time for a fortnight or so. Now be sensible. I have tried to give you a good time. Don't act as though I had hurt you.'"

"Imagine! Oh, girls, can you comprehend how I felt? It was too much. I couldn't answer, and was not even conscious that I walked."

"That's the wrong way!" I heard him say, and found I was walking into a side room.

"As we turned back and went out by the main doorway, he said, 'Look here, little girl,' in that softly tender tone which then seemed hateful to me, 'you are taking this matter too much to heart; I don't want you to be unhappy. Let us make up. Come, I shall take you for a spin in the Bois, and we shall—'"

"Then I turned on him. 'Unhappy!' I exclaimed, 'I am not in the least unhappy; but I am horrified to learn there are men in the world who pose as gentlemen as evil and unworthy of the name as you are!'"

"As I glanced at him, I saw he was endeavoring to suppress a smile, and pulling at his mustache. 'Oh come,' he said, 'that's rather severe, isn't it? What have I done? Are you offended because Mrs. Greeley asked me to dine?'"

"We were now in the street, and as I was too agitated to reply, I turned from him and went in the opposite direction. But he followed me saying, 'Here's the car; where are you going?'"

"I am not going into that with you again, most certainly!" I replied. "I never want to see you again, and I wish you to send some one at once for those necklaces, with a written receipt signed by you."

"I shall do nothing of the sort," he returned. "They are yours, and I want you to keep them as a memento until some day you may not think so badly of me as you do now."

"I shall not keep them; you must send for them, you shall!" I said, in a sudden fit of anger at his insolence.

"Don't be foolish," he said. "You are such a child! Why, for what earthly reason should you return them?"

"Very well," I replied, "if you do not send some one for them to-morrow, I shall bring them myself to Mrs. Greeley and explain to her how they came into my possession!" Then I went to an open cab that stood by the curb, called my address to the coachman, and had my foot on the step, when Mr. Lawson—I can't call him Charles any more—caught me by the arm.

"I shall send for them," he said, "but let me take you home. It is ridiculous to part like this! One would think I had done you some grave wrong."

"You have," I answered, "you have insulted me grossly and you have destroyed my faith in all mankind!"

"He said something which I did not hear, for at the same time I called to the coachman to go on, and as we turned away I got a glimpse of Lawson standing bareheaded by the curb, with a strange, half-amused look on his face."

"Oh, Edith, never regret that George is not well off! Even the direst poverty shared with an honest man who loves you is something to be everlastingly grateful for. Money cannot buy that, and poverty with such love can never bring you to the depths of misery I have reached!"

"But this is not all; the price is not yet paid for my brief and false happiness. When I got home new troubles greeted me, for I had scarcely closed the door of my room, prepared to yield myself to the sorrow welling up within me, when there came a tap and Madame D. entered. She held in her hand an unopened 'petit bleu'—a sort of special delivery note, sent pneumatically as quickly as a telegram. She handed it to me, saying, 'This came for you this afternoon. I am dining out, and as I may not have another opportunity to speak to you, I must tell you now that I shall not require your services any longer.'"

"She waited an instant for me to speak, but I could not. Nothing mattered to me then; I didn't care in the least if she put me out in the street to-night, for I have reached the end of my courage."

"Yet, I believe that if the room had not been so dark and she could have seen my face, she would have had compassion on me, and given me a chance to defend myself; but as it was, I did not feel able to make the effort, and my silence only added to her indignation."

[CONTINUED ON PAGE 21]

Where Was Abraham Lincoln Born?

An Interesting Historic Study by Henry Whitney Cleveland

OPENING any of the great histories such as the Herndon, or the Century or McClure's, the answer seems ready to hand—In then Hardin County, now Larue, Kentucky, on Nolin creek farm some three miles from Hodgenville. Looking at the pictures of the log-cabin and farm scene and spring, we take it all with the unquestioning faith of a child looking at the picture of the Ark of Noah and the animals all paired, trooping in. It is a shock to find even the Bible say that the "clean" ones went in by sevens, the odd male apparently stalled for the sacrificial altar under the rainbow.

The father and mother of President Lincoln have been assailed with evil stories—perhaps it seemed safe since they were dead—and the inventors may resent it that they are all located half a hundred miles from any possibility. He was born on the waters of Beechcreek some twelve miles from Springfield, in the county of Washington, Kentucky, and the date is written in his own hand on pages of his interleaved Bible, as 12th of February, 1809. Sifting the evidence against this date, there really is none worthy of belief.

He seems not to have known the time or place of the marriage of his father and mother, Thomas Lincoln and Nancy Hanks. This was settled finally at 12th June, 1806, nearly three years before his birth, by the Century, November, 1886. It required just eighty years to know. This writer, a southern Democratic conventionist of 1860, became interested in the personality, as Alexander H. Stephens said at Liberty Hall in Georgia—"He and I entered Congress near the same time. Both were whigs and members of 'The Young Indian Club,' and he is both smart and honest and will be a mighty hard man to beat." Writing the biography of Vice President Stephens and material for his constitutional history, precious Lincoln autograph letters came into my hands, and on beginning certain historic writings in Kentucky, in 1884, Dr. Christopher Columbus Graham, then in his hundredth year, and known to me in Harrodsburg, Kentucky, before 1839, said: "His father and mother were as good country folk as we then had in Kentucky, and I was at their wedding on Forks of Beechcreek, in the year 1806. All of us, misled for a time by an after date and a wrong certificate of the record: the clerk of Washington County Court, Mr. W. F. Booker, set us all right as to the marriage, and the birthplace evidence has been all in for twelve years. Dr. Graham told hundreds of persons of the marriage, since A. Lincoln became famous in 1858 in the Senate race, and Rev. J. A. McClung, author of the "Annals of Kentucky," began a sketch of him in the early days of African colonization, in the Henry Clay efforts for which they both took part. His manuscript, partly inspired by Mr. Lincoln before he was President, exists, and I also have the original plan of Henry Clay for a Liberian colony, prepared in his own hand for ex-president John Q. Adams and President Monroe. Strange to say, "The New England Historical and Genealogical Register," 1887, Volume XLI, p. 153, (and in McClure's "Early Life of Lincoln," p. 226), has—"The son, Thomas Lincoln married Nancy Hanks, September 23d, 1806, near Springfield, Kentucky." This is a year after the Century fixed the true date by a facsimile of the original return to court by Reverend Jesse Head, who solemnized the nuptial rites. He was one of the early anti-slavery men of Kentucky, and his words to Thomas and his wife, entered into the dawning life of Abraham, their child, and made the Liberator possible, as Mrs. H. B. Stowe and Horace Greeley, made a Republican party to elect him president. The family-tree of Mr. Lincoln had roots deep in English and in Massachusetts soil of freedom, and the predestined plan of the ages came up to the full results of 1861-1865, very much as if there was design and plan, will and God, in it all.

One inclined to the hazy boundary between real tradition and the myths of the Scandinavian runes, might like to trace these Waterstones, for that is the English of *Lin*, a brook or torrent, and *Coln*, a column or erected stone. They were said to derive it from carrying in the desert the Jacob pillow of his ladder-dream, the smitten rock of which St. Paul writes (1 Cor. X. iv) as the "spiritual rock that followed them," and type of Christ; the "King's pillar," too, brought by Jeremiah to Tara, B. C. 580; the Columba and Scone stone of Scotland's monarchs, and the "coronation stone" which has held its place in Westminster chapel under the seat of Edward's chair, since James VI. became James I. in it, and the Stuarts ruled England. To prove that would establish the Israel-Saxon identity, Charles Darwin (Descent of Species, p. 90) writes, "We can trace the formation

of many words further back than that of species." More surely we read it in the chronicles of Lincolnshire of England, and spell it out in the Masonic cryptology of Lincoln cathedral founded by William Rufus, a red-haired kinsman, and rebuilt by Henry the Second. In 1780, one of the first three counties of Kentucky territory, that is, Jefferson, Fayette and Lincoln, took its name more from pioneer memories of the Englishshire, than from Gen. Benj. Lincoln, made local commander in Massachusetts in 1776 in his forty second year. By Congress, in the year 1778, General Lincoln was made commander of the South of the first Confederation. Some persons smiled, when, February 8th, 1864, Gen. B. F. Butler wrote a half serious claim of his family name as being as old as Pharaoh's cup-bearer. The Louisville German Club keep his letter. His guess and mine may pass, since in 1886, the Century, and now McClure's in 1896, adopt the statement that a survey of Jefferson County, Book "B," p. 60, of Virginia warrant No. 3334, in which the grantee is Abraham Linkhorn, is part of the pioneer Lincoln landtitle in Kentucky. The grantee signs Linkhorn, as marker. The chain carriers are Hananiah Lincoln and Josiah Lincoln, the latter second son of the first A. Lincoln, and both spelled correctly. If the land-office could so blunder, surely the father would know his own name. The city archives of Louisville show both lines distinct for an hundred years. To admit that the pioneer lived up to the survey date, May 7, 1785, the family tradition had to be altered, that he was killed in the spring of 1784, and could not be "marker" a year later. Therefore the Century, having high Kentucky authority, pushed it up to 1786. Now McClure's, giving the same historian as authority, push it on up to 1788, and sustain it by a one-page inventory of Nelson county, where, as writes his kinsman, J. L. Nall—he never lived. Yet evidence now makes it probable that the widow, Mary Shipley Lincoln, settled with five children on Lincoln Run in Washington county, in 1785. Nay, more, while Thomas Lincoln owned none of that paternal land, he surely married and lived in the Richard Berry house at Beechland, from which springwater little Abe was



LINCOLN

christened at the Quarterly Meeting in the fall of 1809, the certificate being at the Louisville, Kentucky, Southern Exposition of 1884.

The next hitch is in the death of A. Lincoln, the pioneer, said by his great grandson, J. L. Nall, of Missouri, to have been killed by Indians at Beargrass Fort, Ohio River, in 1784. Upon a variation from this hangs the Linkhorn myth. It may be said that Beargrass settlement, following the present run of that creek in East Louisville, is miles away from Fourth Street, the reputed place of the killing. That is only because the city cuts off the old run two miles above. Thomas Hutchins, in the first topographical survey, November 1st, 1778, maps the Falls of Ohio, and a large creek, unnamed, entering at the upper end of Corn Island, then opposite Fourth Street. Gilbert Imlay, land-agent and historian, publishing in London, first edition, 1792, says of the rapids of the Ohio at Louisville: "Which inconvenience may be easily removed by cutting a canal from the mouth of Beargrass Creek on the upper side of the Rapids, to below the reef of rocks which is not quite two miles and a gentle declivity the whole way." (Letter III, p. 48, Imlay.) William Hayden English, in his great life of Gen. Geo. Rogers Clark, describes the forts truly (Vol. II, ch. V. 131-155). Chapter XII, pp. 353-378 tells of the first mainland settlement. Vol. II, pp. 754-756 describes fully the Beargrass fort of the traditional killing, built in the winter of 1778-1779, and of the larger Fort Nelson in 1782, both existing in 1784. Victor Hugo writes: "It is the unexpected that happens." I do not expect it to happen that the blood kinsman is entirely mistaken when he locates the killing of the pioneer, grandfather of the President at near Fourth and Main Streets, Falls of Ohio, in 1784, nor other than that Thomas Lincoln was then "six years old," nor other than that the Indian murderer seized the little child for flight and with the boy in his arms, was killed by Mordecai his brother, then ten years old and able to shoot a rifle with a "rest."

Children get worried that Bible pictures of the same event are not alike. The Century and McClure give us our pictorial gospel



LINCOLN AND HIS FAMILY

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of Saint Lincoln. One has it in a settler's clearing in Nelson county on Long Run of Floyd's Fork, and the picture shows the death shot of 1786 two years too late. The other of McClure's (p. 24) gives us Hughes's Station in the same county, also from an "original," quotes the same authority, and gives us a regular Four-Block-House Fort, as good as that made by state aid in Harrodsburg in 1812-14. The pencils of two artists, Boccacini and McDonald, seem scrolled

therein, yet the work is not signed in the latter. The killing is only located and the date is 1788. Here the authority for so entire a change of time and place—the new information if by the same authority—should appear. R. T. Durrett, L.L.D. is author of the mythology, and he also, as President of Filson Club, procured from Rudolph Boccacini, an Italian artist, a portrait in crayon of Rev. Jesse Head who died in 1842 and Boccacini emigrated here in 1884.

The family historian, J. L. Nall, says the pioneer Lincoln had lands there, that is, Nelson county—so the inventory proves—and, "he never lived there." If he lived there in 1788 he might have been killed there if not once killed in 1784. Richard Henry Collins, the ablest Kentucky historian, up to 1874 had failed to find Hughes Station. It was a stockade only and of later date than 1780. Whatever the year of this Indian murder, the widow, Mary Shipley Lincoln, and five children moved to a stream called for them, Lincoln's Run, near the Forks of Beechcreek in Washington County, and the records indicate as early as 1785, three years before the mythological 1788. The county was the first of state creation in 1792. Here in another mystery for Mordecai inherited the lands of very considerable extent, and the personality was much larger than is shown by a Nelson county farm inventory of 1788, only one page long. Yet primogeniture ceased in all Virginia territory in 1776, and "child" took the place of "eldest heir male," in the revised statutes. Thomas, the younger son, certainly owned land in the county of Hardin, in 1803, three years before his marriage. He either was far from the shiftless sort of the historic portraits, or he inherited certain property.

On a fair June day he took a pure and gentle young woman to wife, and the certificate was not known to the President until 1864, about the time of his second election. The only living child of the preacher, wrote in 1886: "This is the writing of my father, signed E. Bascom Head," and he and Henry Cleveland Wood, of Harrodsburg, Ky., wrote a small biography of twenty pages. Dr. Christopher Columbus Graham, pupil of the great surgeon, Benj. M. Dudley, and at one time perhaps the richest man in Kentucky, dictated an extended account of the marriage and coincident events, and signed it, "In my 100th year." If he wrote it now from his grave, and with all the lights we have, he would only vary very slightly from a sworn statement made before a clerk of the U. S. District Court, 1st Dist., Indiana, March 20th, 1882, and the longer statement begun in January 1884 (McClure's "Early Life," pp. 228, and 231 to 236). In that the value of the phonetic signs seems to be Lincoln for the backwoods' mispronunciation; Linkhorn being condemned by himself (p. 235). For, "He was born at what was then known as the Rock Spring farm"—read—He was raised. In the next paragraph of the last boy, read, "born in Elizabethtown," and not "Hodgenville." The affidavit disposes of the Rev. W. M. Grubbs, letter, p. 229, McClure, and answers a string of questions of the N. Y. "Christian Advocate," April 13th, 1882. Dr. Graham began to talk of the Lincoln marriage from the dawn of his celebrity in 1858, and hundreds heard him. Early in 1886, the record of Washington county was found by W. H. Perrin, last Kentucky historian, incited thereto by the late Dr. T. S. Bell, a friend of the President. A copy with the writing imitated, sent to the Century in August 1886, drew from R. M. Gilder the query: "How could it have lain out of the family so long?" Well, I had one hundred dollars for the document and traced copies of the bond and return to court; and the history is worth as much. I only say on his own authority, President Lincoln knew it shortly before he died. How did it happen that with mother alive to October 5th, 1818, and his father alive until nine years after the marriage to Mary Todd in 1842, that he did not know from one of them of the Washington county marriage, even when his future Todd connections themselves related to Chief Justice John Marshall, and to Madison and Washington, made his marriage for a time depend upon ability to prove his family line unstained? Why, if he knew it then, did he not write it in his interleaved Bible? (McClure's "Early Life," pp. 58-59.) How did that precious book leave his family, as it has,



THE OLD LINCOLN CABIN NEAR SPRINGFIELD, WASHINGTON COUNTY, KENTUCKY. WHERE THOMAS LINCOLN AND NANCY HANKS WERE MARRIED ON JUNE 12, 1806, AND WHERE ABRAHAM LINCOLN WAS BORN IN 1809

and why are the "leaves" of its autograph record in Chicago, and the Bible in the Washington museum? Why did two of his biographers, and one of them his law partner, Mr. Herndon, deny his lawful birth? Why finally, in A. D. 1896, ninety years from the marriage, is it necessary in a paper like this to settle the place of his birth? When a biped without feathers erects itself as an interrogation point, the thing is then led for the newspapers, the true makers of history. Why? WHY? WHY? A facsimile is its own proof, writings being compared. Documents are for history. Miss Ida M. Tarbell, editor of one of the "Lives," thinks history is to explain documents? A historian with a thousand references would have a good time doing it! This all leads up; and is it A. Tennyson who writes of "Altar steps that lead through darkness up to God." Surely never was there so public a character so folded in mystery. It need not be. There lay for sixty and eighty years the 'return' of which this certifies. In 1884, at least four persons know that A. Lincoln was born in the house where this marriage took place. I do hereby certify that by authority of Licence Issued from the Clerk's office of Washington County I have Solemnized the Rites of Matrimony between Thomas Lincoln and Nancy Hanks, June 12th, 1806, A. D. agreeable to the Rites and Ceremonies of the Methodist Episcopal Church, Witness my hand.

JESSE HEAD, D. E. M. E. C.
This stands for Deacon and Elder, Methodist Episcopal Church.

There is its spelling and capitalization. (See McClure's "Early Life," p. 31.) It is usual for a girl wife to wish to remain with "her people" for care and love in child-bearing. The histories say Thomas Lincoln carried her away to the wilderness of Hardin, a full county breadth from the settlement, for bearing three children. A noted slanderer, Abraham Enlow, based the claim of his sons to be the half brothers of the Martyr on this theory. The slander is fifty miles from its base. Sally Lincoln, first called otherwise Mary from an aunt, was born on the waters of Beechcreek in 1807. She married and died in another state. The house, now double, is of logs well hewn and excellent for its period. Major Richard Berry, grandfather of Nancy Hanks, whose parents were dead, was her guardian, or *gardeen* as he signs the marriage bond, and Dr. Graham thought she had some property, certainly some of a personal sort. The husband, Thomas, had land in Hardin, then a wilderness, and a section near enough the Ohio and Salt rivers to be in peril of Indians, who yet visited their old salt-licks. He was a cabinet-maker of a superior kind for his time, and he owned the only turning-lathe for wood then west of the Alleghany mountains. His elder brother, Mordecai, was a prominent citizen and magistrate. Naturally he staid where he was best off, and it was his misfortune to go to Hardin farm in a time of great agricultural distress, and to sell out there in 1814, when the evil bank legislation, not shiftlessness, left him destitute and drove him on to Indiana. He did not go away until late in 1809, and on February 12th of that year, his second child and first boy was born in the Berry house in the older room, and—likely—there, at a Quarterly Meeting, he was baptised in water from the spring at the foot of the little hill in the locust grove. Rev. George L. Rogers, another Methodist who solemnized the second marriage with Sally Bush Johnston, December 2, 1819, was asked in the interest of the President, in 1864. "As they were Methodists did you christen their children, especially the little boy, said by you and by clerk Samuel Haycraft, to have lived in then Hardin county until his seventh year?" The reply was, "No, it was already done in Washington county, where the girl and boy were born. There was another little boy child born and died in Elizabethtown."

Not until 1895, when the Grand Army Encampment in Kentucky, revived the interest in a place that must be second only to Mount Vernon in many patriot hearts, did it seem necessary to fix the place of birth. Then with a monument in view, and tons of walking canes of Lincoln farm wood for sale, and a railway and a speculator concerned in tickets and relics, it was as mistakenly located, as when the "Innocent" of Mark Twain wept at the tomb of Adam, in Asia. Abraham Lincoln was not strong on home ties. He refused in a letter, more religious than kind, to see his father on his death bed. He never put a stone at the grave of either parent. He was great enough to begin history. His son Robert T. Lincoln, does not know, nor much seem to care. Major D. W. Sanders, an ex-Confederate, bought the thirty-three acre homestead and the historic house, not for speculation, but to preserve it as a free gift to the people of the United States. Save a new roof, it is all unchanged. Mr. W. F. Booker, a descendant of heroic pioneers, whose patient search settled the marriage for all time, makes this statement, true I think in every line. "There can be no doubt that on June 12, 1806, Thomas Lincoln and Nancy Hanks were married by Deacon Jesse Head, of the M. E. Church, in a log cabin tenanted by Richard Berry, Sr., the guardian of Nancy Hanks. It is also known that the young couple lived there for sometime afterward and finally removed to Larue (then Hardin) county. Mr. Lincoln thought he had been born in Hardin county, and that was one reason he could never establish his legitimacy. In attempting to do so he had the records of Hardin county examined, while those he sought were stored away in the courthouse of Washington, at Springfield. Some years since, Judge R. M. Thompson, of our Springfield, Kentucky, who had heard his mother, an own cousin of Nancy Hanks,

speak of the marriage of Mr. Lincoln's parents, saw in Mark L. Lamon's biography of Lincoln, the statement that the parents of the President were never married. He determined to prove that they were legally married. He went to the county clerk, W. F. Booker, Esq., and asked him to look. Mr. Booker said it was almost hopeless, as no indexes had been kept. The Squire persisted, and after a long search among old records, the marriage bond and minister's return for record, were found.

THE BOND. "Know all men by these presents that we, Thomas Lincoln and Richard Berry, are held and firmly bound unto his Excellency, the Governor of Kentucky, in the just and full sum of fifty pounds, current money, to the payment of which, well

I do hereby certify that by Authority of Licence Issued from the Clerks Office of Washington Co I have Solemnized the Rites of Matrimony between Thomas Lincoln and Nancy Hanks, June 12th 1806 A.D. agreeable to the Rites and Ceremonies of the Methodist Episcopal Church witness my hand

Jesse Head D. E. M. E. C.

A COPY OF THE CERTIFICATE OF MARRIAGE OF THOMAS LINCOLN AND NANCY HANKS

and truly to be made to the said Governor and his successors, we bind ourselves and our heirs, jointly and severally, firmly by these presents. The condition of the above obligation is such, that whereas there is a marriage shortly intended between the above bound Thomas Lincoln and Nancy Hanks, for which a license has been issued: Now if there be no lawful cause to obstruct the said marriage, then this obligation to be void, else to remain in full force and virtue. Witness, THOMAS LINCOLN... [SEAL.] JOHN H. PARROT RICHARD BERRY. [SEAL.] Guardian.

CERTIFICATE RETURN: Washington county Settlement. "I do hereby certify that the following is a true list of marriages solemnized by me, the subscriber, since the 28th of April, 1806, until the date hereof. . . . June 12th, 1806, Thomas Lincoln and Nancy Hanks, September 23d, 1806, Anthony Lytsey and Kessiah Purtle. . . . Given under my hand this 22d day of April, 1807

JESSE HEAD, D. M. E. C."

There were fifteen couples so reported married, and it was the unlucky after date, 23d September, which confused all industrious historians and for a time made the certificate or "marriage lines," seem a mistake of three months.

AFFIDAVIT OF HON. R. M. THOMPSON. "This affiant says he is a native of Washington county, Kentucky, and is seventy-nine (79) years old. He was raised in said county and has lived in it all his life except eight years when he lived in Indianapolis, Indiana. His present residence is Springfield, county and state aforesaid. The mother of Nancy (Hanks) Lincoln, who was the mother of President Abraham Lincoln, was an own cousin of this affiant's mother. Affiant well knew Richard Berry, Jr., who was grandson of Richard Berry, Sr., who was the guardian of Nancy (Hanks) Lincoln, wife of Thomas Lincoln. Said Richard Berry, Jr., lived with his father, Frank Berry, son of Richard Berry, Sr. The marriage of Thomas Lincoln and Nancy Hanks, parents of President A. Lincoln, occurred in the same house or premises recently sold and

conveyed by Mrs. Sallie Reed, wife of Henry F. Reed, and by said Henry F. to Major D. W. Sanders of Louisville, Kentucky. Said Richard Berry, Jr., told affiant as he now recollects, and his memory serves him well, about the close of the late Civil War that President Abraham Lincoln was born in said house in Washington county, Kentucky, the same one in which his parents were married. (See pictures Century, November, 1886, McClure's November, 1895, ed.) This affiant was well acquainted with William Hardesty, who lived to an extreme old age, and whose residence was always in the neighborhood of the said premises. Said William Hardesty was an honorable, reputable, and upright citizen, and every way

worthy of belief. He, the said William Hardesty, has made affidavit and sworn that he was present and witnessed the marriage of Thomas Lincoln and Nancy Hanks in said house, by Deacon Jesse Head of the Methodist Episcopal church. As sworn, said William Hardesty has frequently told affiant that there was born to said Thomas Lincoln and his wife, a daughter older than President Abraham Lincoln, she the said daughter being the first child and both born in that house. She died early. (Sarah Grigsby, 1827, Ed.) Said Richard Berry, Jr., was a good citizen and worthy to be believed. R. M. THOMPSON.

State of Kentucky, Washington County.

"I certify that R. M. Thompson subscribed to and made oath of the foregoing statement this day. He is a most reputable citizen, upright, moral and creditable in every way. Before he executed this I read it over to him and explained the contents and he understood the same and did voluntarily, in my presence, execute said affidavit, the same being then dictated by said R. M. Thompson. Witness my hand and the seal of office this 13th day of April, 1891.

[SEAL.] J. L. WHARTON.

Clerk of Washington Circuit Court.

Judge Richard J. Browne, of Louisville, Kentucky, and formerly of Springfield, Washington county, said in an interview at the "Daily Times," and also in an interview then prepared to be sworn to, in the same month and year: "That Mr. James Thompson, Sr., and William Hardesty told me many years ago they were at the marriage of Thomas Lincoln and Nancy Hanks at Dick Berry's, the grandfather of Nancy Hanks, on the waters of Beech Fork Creek, near what was then called Mattingly's Mills, and now Beechland Mills. William Hardesty told me that he remembered Abraham Lincoln as a very little boy and that he lived in old Mr. Berry's house in which his father and his mother were married. And that they soon moved away, and it was said, into Hardin county, Kentucky, and all this was generally believed by the oldest citizens." Signed, RICHARD J. BROWNE.

I suppose however the case will meet the case. You think slavery is right and ought to be extended - while we think it is wrong and ought to be restricted - That I suppose is the real - & I certainly is the only substantial difference between us -

Yours very truly
A. Lincoln

Facsimile of a famous letter written by the Great Lincoln to his friend, Alexander H. Stephens. The original is the property of Henry Whitney Cleveland, biographer of Stephens.

Historian William H. Perrin, said after full examination, on 25th of March, 1886, "the Lincolns of Washington county were not low or ignorant people, but all stood well in public esteem, and that Judge Booker had said in 1860—"If Abraham Lincoln is as good a man as was his uncle Mordecai who served with me in the legislature forty years ago, the people of the South need not be afraid of him in the Presidency."

The statement of William Hardesty is of the same import as those of Squire Thomp-

son and Browne, and is quite long. Neither Major D. W. Sanders, the owner, nor W. F. Booker, Esq., nor Hon. John W. Lewis M. C., nor this writer, have anything to sell or desire of gain in the fixing of the true birthplace of Abraham Lincoln. To those who ventured and lost all on the issues of state sovereignty, it would be money in their pockets if Abraham Lincoln had never been born at all. They join in no slanders, and—"Great let me call him since he conquered me."

Now let us tabulate the pedigree, (McClure's Early Life, pp. 21 and 223 and 224.) Mr. L. E. Chittenden was Register of the Treasury to A. Lincoln, and compiler of a campaign book by aid of the President. If he contributed the N. E. Register matter of 1887, he is three months out.

Table showing birth years of father and succeeding son of the A. Lincoln Massachusetts line and age of father at the child's birth.

1. Samuel Lincoln, born 1620, to Mordecai, 4th son born 1667.....	47th father year
2. Mordecai, born 1886, to Mordecai, 1st son born 1686	19th " "
3. Mordecai, born 1686, to John, born 1725.....	39th " "
4. John, born 1725, to Abraham 1750 (1760?)..	25th " "
5. Abraham, born 1750, to Thomas, born 1778.....	28th " "
6. Thomas, born Jan. 6th, 1778, to Abraham 1809.	31th " "
7. Abraham, born 1809, to Robert, born.....	Deed of gift of
Abraham, g. f. married Mary Shipley, North Carolina, 1773, Mordecai, born 1774, Josiah born 1776, Thomas, born 1778, in Kentucky, Mary, born 1780, Nancy, born 1782	Land, John to Abraham, Va. in 1773, in 13th year if born 1760

The dates of the sixth generation are from tombstones copied and deeds and letters in my own possession, and I am reasonably sure that in the first American, there is a son, Thomas, born 1642, in that gap of 47 years, and between the two Mordecai births, 23 years, not 19. As I am not editing the "New England Register" this may now pass.

OF THOMAS LINCOLN'S UNMARBLED HOME—TO THE G. A. R.

Men talk of the Son who made men free
And call him the Liberator,
Yet ask not if the source of the stream
Or the stream itself, be the greater.

States sown as stars on the heaven of blue,
To the thirteen stripes he wove;
A stranger owns his birthplace logs,
At the spring in the locust grove.

From the Samuel-Benjamin Lincoln state
Of old Massachusetts Bay,
Came the Pioneer who was Indian slain
At Ohio Falls, in May. 1784

Thomas—the child in the Indian's arms—
Baptised with his crimson stream—
Escaped to the Fort to begin the line—
Among slaves—of the Freedom dream.

Thomas—a cabinet-maker was—
And in cabinets worked his son;
Which worked the better, God only knows
For the work is but begun.

An obelisk the nation piled
Where the ashes of Lincoln moulder;
But the mother and he who gave him life
Were left to the hillock and boulder.

The willows wave and pine trees toss
Where the blue and the gray now sleep,
By Thomas, the father of Lincoln-the-Great,
Not even a rose we keep.

Here lieth the old Kentucky land
Of Harrod and Boone and Clay;
But the logs of the Thomas Lincoln home
Are left to the storms decay.

Born where the waters of Beechcreek flow
Toward Springfield's ancient town,
Born in the county of Washington
By Lincoln Run so brown—

Was the son of Thomas and Nancy Hanks
Of the midland twist the sea,
But only a negro keeps the roof
Of the child who made them free.

Two stones, they say, mark the parted graves
Of the mother and of the sire,
But Kentucky that hatched the Lincoln
brood,
Hath never a stone nor a spire.

A Confederate—Sanders—saved the house
Of the thirty-three acre home,
But the floor of the Abraham Lincoln birth,
Hath only a wooden dome.

A Confederate—cleareth parents both
From slanders of evil fame;
Now sons of the North in the land re-
deemed—
Rear a stone to the Lincoln name.

Poem written by Henry Whitney Cleveland, Sunday, 24th May, 1896. Louisville, Kentucky.

The Battle of the Alamo

A LITTLE distance out from the city of San Antonio, Texas, there stands the remains of an old mission building, which in the early part of 1836 was the scene of a remarkable battle.

Texas, which was then considered a part of Mexico, had been settled by colonists from the United States, and there, too, were many outlaws and soldiers of fortune who found the border a convenient place for their trade. Trouble arose between the settlers and the Mexican government; the former asked for a state's rights, and when refused rose in arms. Santa Anna, Governor of Mexico, promptly invaded the territory. Col. William Barrett Travis with one hundred and seventy men was left to keep the fortress of the Alamo. Among his assistants were Davy Crockett and the scarcely less-known adventurer Col. James Bowie, the inventor of the knife which bears his name.

On the twenty-third of February Santa Anna invested the Alamo with four thousand men. It was the beginning of a siege which lasted twelve days. He planted cannon on both sides of the river, and on Travis' refusal to surrender the firing began. Day after day the siege dragged on. The cannon did little damage to the fort but the rifles of the borderers worked havoc among the Mexicans. The latter added assault to cannon fire, but time after time they were repulsed. And then a more dread enemy took up the work. Food became scarce, and the little band of defenders gradually lost strength.

In the darkness of the early morning of the sixth of March, Santa Anna arranged his forces for a combined attack on the Alamo. The defenders met the Mexicans in a hand-to-hand struggle. It was clubbed rifles and knives against swords and bayonets. One by one the little band went down, but every one left a circle of dead about him. Bowie crawled from a sick-bed, and died fighting on his knees. At last Crockett and five others remained. The old fighter was slowly forced back to an angle in the wall. Blood was pouring from a sword gash on his forehead, but with clubbed rifle he held his assailants at bay. Not until he received a promise of protection did he surrender. Then with the others he was taken before Santa Anna. A jerk of the thumb and the latter had condemned his captives. As Crockett leaped to defend himself a dozen swords were buried in his body.

Santa Anna was afterward defeated at San Jacinto, and Texas became a free republic.

Famous Bits of History



Painted by C. M. Relyea

THE BATTLE OF THE ALAMO—DAVY CROCKETT'S LAST STAND

Custer's Last Fight

FOR many years after the Civil War the Indians of the Northwest gave the United States government much trouble. Led by such chiefs as Sitting Bull and Crazy Horse, they became more and more inimical to settlers, and in 1876 it was accordingly determined to conduct another campaign against them.

The Sioux were mainly at home in the Bad Lands, and it was against them at this point that the troops were to be concentrated. The expedition was divided into three columns—one under General Crook setting out from Fort Fetterman; one under Gibbon from Fort Ellis, and one under General Terry from Fort Lincoln. The plan was to surround and wipe out Sitting Bull. On June 16th Crook was within striking distance, and indeed started to attack, but before he could make this effective Sitting Bull vigorously attacked him and forced him to remain in his camp.

Meantime a hundred miles north Gibbon and Terry had established communication and practically located the Indian encampment on the divide between the Rosebud and the Little Big Horn Rivers.

Terry immediately ordered the column commanded by Gen. George A. Custer to strike a blow.

Custer and his column, left camp on the twenty-second. On the twenty-fourth he was informed that the Indians were camped on the Little Big Horn, and by a night march Custer crossed the divide and prepared to attack. He divided his men into three columns; Custer was on the right bank and Reno on the left, while Benteen maneuvered to the left still further. The village was on this bank, and Reno approached to attack it, but was driven back by the Indians and forced to entrench himself. This left Custer unsupported when he struck the village at its center. Sitting Bull, having disposed of Reno at about noon, had time to turn with his warriors and meet Custer at the ford. The fight began at half-past two, and continued till sundown. Slowly before the horde of Indians the soldiers had to retire from the river. Gradually the blood-thirsty Sioux closed around the little knot of brave men. One by one the soldiers fell, and as the Indians made a last charge, Custer, saber in hand, after killing three Indians, was shot dead. Only one man, an Indian scout, survived the massacre.



Painted by Frederic Remington

CUSTER'S LAST FIGHT

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ARE MANY
UNTIL YOU
GIVE HIM
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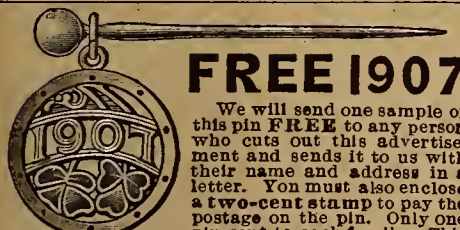
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Answer to Puzzle in the January 15th Issue: Runners, Braces, Knees, Fender, Crossbar, Swingletree

The Strange Adventures of Helen Mortimer

[CONTINUED FROM PAGE 17]

"I flattered myself I knew human nature," she continued coldly, "but you have deceived me. The things I have learned of you to-day have substantiated suspicions which I have tried to ignore, though you have given me ample occasion to credit them. That you could have so repaid the interest I have taken in your welfare by behaving as you have in my house, and by deliberately asserting that you are engaged to a man who, I am told, is not free to—"

"It is not so!" I interrupted passionately, "I was engaged to him legitimately!"

"You were! You are not now, then?"

"No, I am not."

"She laughed shortly. 'That is strangely convenient!' she said. 'However, as I am not acting as your guardian, I don't care to investigate. In this envelope is the amount I owe you for these three weeks, and as I don't care to see you again, I should like you to leave as early as possible to-morrow. I feel very sorry that I must say this, and had you shown more confidence in me I might have been willing to help you in spite of all, but I despise deceit and treachery, at both of which you appear to be an adept.'

"I couldn't speak, every thought fled from me under those cruel, insulting words, and when she had left me I stood there trembling in the dusk, hating her, and all the world! I did not cry, I could not! Every tear seemed frozen in my heart, and when at last I lighted the gas, I did so as in a dream.

"The 'petit bleu' was from Mrs. Pancoast telling me to meet her at the Hotel de Havre to-morrow morning at eleven. In a way it was a relief to feel there was someone I could go to, for I have begun to have a horror of loneliness, and the excitement of seeing her, which I had formerly so dreaded, now promised to take my thoughts from my own troubles and I welcomed it.

"I set to work feverishly to pack my things, trying not to realize that I was to leave that dear little room where I have been so happy. I knew well enough that Ethel Watson was the informant who had turned Madame D. so bitterly against me, and I could imagine the ugly stories she had related to her, stories that will probably shadow my name forever, although, as you know, I have been in no way guilty.

"I had drawn out that bag Mrs. Pancoast gave me, and was preparing to put my things into it when there was a knock at the door and the maid entered.

"I forgot to tell you, Mademoiselle, when you came in," she said, "that a lady called to see you at six o'clock this afternoon and waited in the hall for over an hour."

"A lady!" I said. "Did she leave her name?"

"Yes, Mademoiselle, she told it to me,

but I regret I have forgotten! I asked for her card, but she said she had none with her. I repeated the name over many times, but it escaped me."

"Would you remember if you heard it?" I asked, thinking of Mrs. Pancoast as the only person whom it could possibly be.

"Oh yes, Mademoiselle, it was an English name, but I know I should recognize it."

"Was it Pancoast?"

"Ah, Voila! Yes, Pancoast! That was it, Mademoiselle. Pancoast; that was the very name."

"Then she came before this 'petit bleu' I said."

"Oh, oui, Mademoiselle, the 'petit bleu' arrived but a short time before you."

"Did she leave any message?"

"She said she would come again to-morrow. She seemed very anxious and waited long. Will Mademoiselle not go out to dinner to-night?"

"I told her I wanted nothing, and when she had left the room I read over the 'petit bleu' again, and it seemed to me strange that Mrs. Pancoast did not mention in it that she had come to see me, but concluded she had decided it would be best to have me go to her, and did not consider it necessary to take time to tell me she had been here, so I put it away and proceeded with my packing.

"Meanwhile I was troubled by the thought that Lawson might not send for the necklaces before eleven, and in that case I should not be here to give them, so I decided to have them ready and dispatch a note to him early in the morning, asking him to send for them immediately on receipt of it.

"I had locked them with my letters, and what was left of my hundred dollars, in a little desk where they were perfectly safe from the servants, who in Paris, I believe, are not noted for their honesty. I took my key from the belt-bag where I always carry it, and fitted it in the lock, and to my surprise, it would not turn, though as a rule it worked very easily.

"I struggled with it for some time to no avail, then pulled at the desk, and, my dears, it was unlocked!

"This astonished me, for I could swear I locked it before I went out. But my astonishment increased to horror on seeing that everything in the desk was in confusion; my letters scattered, boxes pulled about, and worse than all, the two velvet jewel-cases lying open and empty!

"At first I could not believe the necklaces were really gone! I began to rummage through everything in the desk aimlessly, without appreciating what I was doing, but involuntarily obeying a silly and unreasonable hope that I might have put them some place and forgotten that I had done so. The shock was so great I could not rally from it at once, and therefore clung to this straw, although it was beyond the limit of probability.

[TO BE CONTINUED NEXT ISSUE]



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After the Wedding

WHENEVER the newspaper states that "for the present the bride and groom will make their home with the parents of the bride or bridegroom," there are always people to shake their heads, and say, "A very bad beginning!" And it is a bad beginning. Ask any woman who began housekeeping right in with her family or her husband's, and she will tell you, if she is honest, that the only way to do is to have a separate home from the first. Of course, there are cases where two families have lived happily as one, but they are few and far between compared with the unhappy men and women who discovered by bitter experience that "no house is large enough for two families."

"It will save us so much when we are getting started to live with John's folks," said a pretty bride a few years ago. "We will have our own room, and that is all we will have to furnish." But before one year had gone over her head she wished she had commenced housekeeping in a two-room house with only John, for the experiment proved a dismal failure. John's mother expected the new daughter-in-law to conform to every rule and regulation of her housekeeping, and some of them were very peculiar, so the poor bride had an unhappy time of it. In her girlhood home she had been consulted and had worked with her mother more as a sister than a daughter, so she was not accustomed to being treated like a six-year-old child.

One of the most annoying things about living with parents after the young people have been married is the fact that company never can be enjoyed as in the separate home. There are young women who never dream of inviting their friends to stay for a meal, simply because the elderly mistress of the house does not approve of it. To be sure, the bride is expected to enjoy the mother-in-law's guests and help cook for them, but she is not free to put her guests into the spare chamber, as she would be in her own home. Everything about the home except in her sleeping room belongs to some one else, and while it may save the price of furniture to begin housekeeping that way, it means much in the sacrifice of liberty and enjoyment.

Every young couple should have a separate home, unless sickness or misfortune makes it necessary to care for aged parents. In that case the bride will have to make the best of things and should know beforehand exactly what is expected of her. To get married expecting and planning for a cozy little home, and then to have to give up to the wishes of parents, is harder than never to have planned at all. Where necessity forces two families to live under one roof, there should be a clear and plain understanding as to the rights of each couple. Even then it is hard enough to reconcile two sets of ideas on housekeeping, but it is better than to take everything for granted.

It is usually the men who can get along out of doors, because they are not kept so closely together, so the bride must take a firm stand if she marry an only son whose fond parents want him to live at home. Marrying an only son is risky business at best, since the mother almost always spoils him, so it is well to begin to train him over in private. There are mothers who have waited on their sons all their lives, and feel offended if the new daughters do not keep up the practice, so if you are alone with your pupil there will be no friction. During the first happy days in a new home it is possible to do a little to offset the selfishness of years fostered by a foolish mother, but when you live with that same foolish mother-in-law, beware.

The best and happiest way to begin is to have the new house partly ready, and go there directly after the wedding. The first meal will be remembered all your life if eaten in the new kitchen or dining



The Housewife

room off your own dishes and cooked by your own hands. You can't afford this just at first? Well, then, stay single until you can afford a separate home. Perhaps some will say it is impossible to get ready to cook the first meal in the new home, and that they intend to remain at home several weeks until it can be gotten ready. Don't you do it! Put off the wedding until a few rooms can be furnished and the happy, separate, independent life begun. For most people



The Knitted Picot Stitch Makes a Graceful and Useful Shawl

there is but one honeymoon in the accepted meaning of the term, but if, after the wedding, you begin housekeeping at once, there is every reason to expect that the honeymoon will last forever. Ask the people who live at home whether they would advise you to follow their example, and see what they say. For every woman who tells you to remain with your parents or go to live with your husband's after you are married, you will find nine hundred and ninety-nine who will emphatically say "No."

HILDA RICHMOND.

The Popcorn Stitch

THE knitted popcorn stitch is another favorite, equally bumpy, but in quite a different way. There are fewer holes, even while the whole effect is much looser than with the knitted raspberry stitch.

Cast on an uneven number of stitches, knit one row, and purl one row.

Third row—Knit one stitch to begin the row; then knit two stitches together across the rest of it.

Fourth row—Knit one to begin, then pick up the thread, crossing from the base of the first stitch to the base of the second, and knit a stitch in it, putting the thread twice over the needle. Knit the second stitch also with a double loop. Repeat these two double stitches all along

the row, then knit one row, dropping each double loop in one long stitch. At the end of the plain row the needle will have twice the number of stitches with which the work was started. Purl one row; then repeat the last four rows until the work is square.

Home-Made Sterilizer

IT is very desirable to sterilize the milk given to infants or invalids, and this may be managed by means of a very simple home-made arrangement.

Procure a tin pail with a cover. Cut a hole in the cover, and fit it with a cork, through which is inserted a dairy thermometer, so that the bulb extends into the water and the temperature may be watched without removing the cover. In the bottom of the pail place a false bottom—a wire dish cloth will do, but a jelly-cake tin drilled full of holes is better, as it offers a surer foundation for the bottles.

Place the milk in the bottles and cork loosely with absorbent cotton. Place in the pail with sufficient cold water to reach to the level of the milk in the bottles, and place over the fire. When the temperature has reached one hundred and fifty-five degrees remove from the fire and let remain covered for about thirty minutes, then set in a cool place.

Great care should be taken regarding the temperature, for if one hundred and fifty-five degrees is not reached, the milk is not properly sterilized, and if subjected to greater heat the taste of the milk is injured.

ALICE M. ASHTON.

The Looped Stitch

THE looped stitch is similar to the herringbone. It is rather more fluffy in appearance, less open and knotted, and perhaps more susceptible to stretching, but on the whole as lovely or even lovelier than the herringbone stitch.

Cast on as with the herringbone stitch.

First row—Slip one as though to purl, *thread twice over needle, purl two together, and repeat from *. It will be seen that in purling the two stitches together the second loop thrown over the needle will drop off, leaving but one extra stitch. This is as it should be. As with the herringbone, the second row of the looped stitch is repeated throughout the shawl.

The Herringbone Stitch

THE herringbone is simple and has a pretty, open effect, while its knotted quality (if it may be so called) makes it commendable as a stitch likely to be shapely even after a time. It is made as follows:

Cast on some multiple of two, plus one. First row—Knit one, *throw the thread over the needle, knit two together, and repeat from *. Repeat the first row for the length of the shawl, then bind off.

The Picot Stitch

THE stitch shown in the shawl worn by the young lady in our illustration is called the knitted picot stitch because of the pretty loops that ever appear upon each tiny bar of the pattern.

Here are combined Shetland wool and Shetland floss; the former in cream white, the latter in one of those delicate shades which reach their highest beauty tones in Shetland floss. The finished fabric is tight and firm, not lacking in the soft, fluffy characteristics essential to

the successful shawl stitch, yet almost without give, wholly without any tendency to stretch.

For the shawl displayed in our illustration ninety-four stitches were cast on and one row knit plain.

Second row—*Knit together two stitches, and without slipping them from the needle knit them together again upon the back thread. This gives two stitches upon the right needle for two stitches upon the left. Repeat from * throughout the shawl, which, when complete, is one and three fourths yards long and twenty-seven inches wide. The ends of the shawl are finished with a crocheted fringe made loosely with a large crochet needle. A single crochet stitch catches the wool in the end (we are assuming our readers know the simple crochet stitches), ten chains are made, then another single crochet in the next stitch. Both ends are worked in this way.

To make the shawl one wants rather less than three fourths of a pound of Shetland floss and about three or four ounces of the Shetland wool. It is impossible to give definite quantities, since the amount of yards to the ounce vary in the different makes.

Potato Cheese-Cakes

TAKE six ounces of cooked mealy potatoes, four ounces of granulated sugar, two ounces of butter, one egg, juice and rind of one lemon. Mash the potatoes with a fork, oil the butter, whisk the egg, add all the ingredients, then the grated lemon rind and strained juice of the lemon. Mix thoroughly. Line patty-pans with puff paste, put a spoonful of the mixture in the center of each, and bake for twenty minutes in a quick oven.

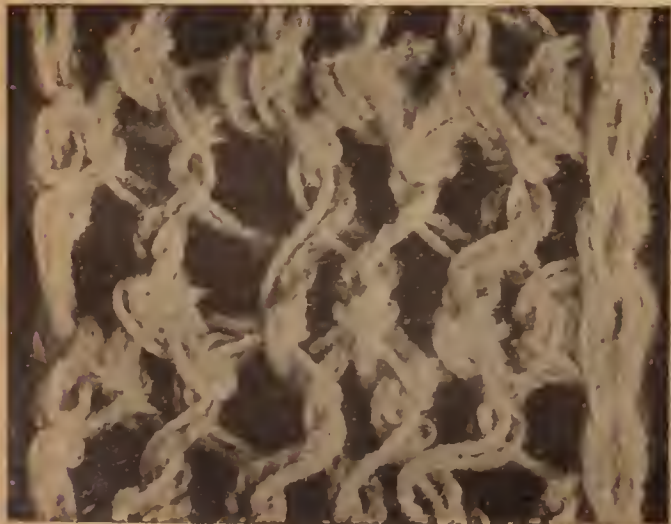
Toasted Biscuits

OUR solution of the hot-bread problem for breakfast is often found in toasted biscuits. Do all the readers know how nice they are? Better, our family declares, than fresh ones, and more easily prepared than any other hot bread, since it involves only the breaking open of cold biscuits, laying them, broken side up, in a pan, and setting in a hot oven until the new surface is nicely toasted and crisp, and the biscuit piping hot all through.

E. E. S.

French Bread

THE real yardstick French bread is much more a product of the oven than of the preparation beforehand, says the New York "Post," a brick oven with an even heat on all sides of the loaf being necessary. Miss Johnson gives the following recipe, saying that French bread pans must be used: Cover four hop flowers with one pint of cold water. Stand over the fire and boil five minutes. Boil, in their jackets, one half pound of potatoes; peel and mash them when done. Pour a pint of boiling water over one quart of flour, stirring constantly; beat until smooth; add the mashed potatoes, and strain in the hop water. Let stand until lukewarm; add one teaspoonful each of salt and sugar, and one cupful of yeast. Set over night. In the morning, when the mixture is light, add flour to make a dough. Knead and beat twenty minutes or until the dough is soft, elastic, and full of bubbles, using as little flour as possible. Let stand again until very light, then make into loaves as follows: Take out enough dough for one loaf; sprinkle the board with flour, form the dough into a ball, then gently roll with the hands until it is the desired elongated shape, and with a rolling pin gently press over the top of the loaf to flatten it without pressing out the sides. Lay the loaf upside down on a floured towel and form the rest of the dough in the same manner. Let stand till light; turn into long French bread pans, the side that has been against the towel turned up. Bake in a moderate oven for forty-five minutes.



The Herringbone, the Most Shapely Stitch for Scarf Shawls



The Looped Stitch for Scarf Shawls



The Knitted Popcorn Stitch

Sofa Pillow in Shadow Work

THIS very pretty pillow cover is stamped on material with diagram for using the floss, and floss for the work. The popularity of this kind of embroidery seems to grow, as new uses for it are devised. Unlike any other kind of needlework, the shadow embroidery is worked on the wrong side of the material. It is about the easiest of execution ever originated, and it is very effective with little labor where used for shirt-waist decoration, collar-and-cuff sets, corset covers, scarfs and centerpieces—even whole white dresses can be decorated very effectively with it.

The material upon which the work is done must be very sheer, so that the embroidery, which is done on the wrong side, can show through. Hence its name. The stitch is very simple. Beginning at the point of a petal or leaf, work in a fagoting stitch (or the stitch our mothers



FOR THE KNITTING

used to open the seams on flannel skirts). The stitches must be close together and meet each other, thus forming an even outline stitch on the right side. The work appears as if the goods were applied to the design underneath, while it is simply the work on the wrong side which produces the effect of application. When colors are used the effect is very delicate, rich and attractive.

The colors of the chrysanthemum on the pillow are pink, yellow and lavender, the stems green. These latter should be worked upon the right side of the cloth, though some prefer that they, too, should be done on the wrong, which is more difficult.

One point about shadow work which is sometimes overlooked is that the work on the wrong side of the finished embroidery should be darned with running stitches, laid under and over the cross stitches, which form the foundation of shadow work. Unless this darning or weaving is done, when the material is very sheer, the cross stitches show through in a most unpleasant manner.

The work is generally done with a very soft mercerized floss of medium thickness. M. E. SMITH.

Washing the Baby

WHEN my babies are inclined to cry at having their faces washed I divert their attention with the jingle we learned in childhood, "Forehead bumper, eye winker, Tom tinker, nose smeller, mouth eater, chin chopper," etc., washing each in turn as mentioned, and they forget all about their grievance. E. E. S.

For the Knitting

THIS convenient knitting receptacle is made by lining with a pretty shade of rose sateen two pieces of white and pink sateen sixteen inches in diameter. Lay the outside and lining together, and stitch around on the machine carefully, leaving an inch opening to turn the goods, and whip over to make a neat finish. Then cut a stiff piece of cardboard five inches in diameter, and place in the center of the two pieces when finished. Stitch around the edge of the cardboard as closely as you can, then divide the other edge into eight equal parts by stitching from the outer edge of the sateen to the edge of the cardboard edge. Then take pink ribbon half an inch wide and attach to every outer edge of sateen between the stitching, catching all the ribbons in the center by a loop and bow of the same ribbon. Place your knitting in the center part, and your different colored yarns in the little pockets. After using one of these useful articles you will never be without one. M. E. W.

Baltimore Apple Bread

THIS was a favorite accompaniment to duck in the old ante-bellum days, and in many old Maryland families still finds abundant application. To make it, rub through a pound of sifted and warmed bread flour, two thirds of a cupful of butter, and three heaping tablespoonfuls of sugar. Dissolve half a cake of compressed yeast in a cupful of milk that has been scalded and cooled to lukewarm.

Add to the flour and mix to a stiff batter. Add three eggs well beaten, and beat the batter until it blisters. It needs to be very stiff. Cover and let rise over night in a warm place. In the morning it should be nearly doubled in bulk. Divide in two portions and roll out in cakes half an inch thick. Spread one with rather tart apple sauce, cover with the other and let them rise together about half an hour, then bake in a moderate oven until well done. As soon as taken from the oven spread with more well cooked and sweetened apple sauce, dredge lightly with sugar, sprinkle with nutmeg or cinnamon, and set back in the oven long enough for the sugar to melt. Eat very hot.—Washington Star.

Potato Croquettes

PRESS enough hot, boiled potatoes through a ricer to make one pint. Add two tablespoonfuls or more of butter, half a teaspoonful of salt, a dash of pepper, and, if desired, a teaspoonful of finely chopped parsley, and about ten drops of onion juice. Beat vigorously with a perforated wooden spoon, then beat in the yolk of one egg. Roll tablespoonfuls of potato mixture into balls, in the hands, then roll in fine bread crumbs into such shape as is desired, cover with egg, beaten and diluted with a tablespoonful or two of water, then roll a second time in crumbs. Fry in deep fat about sixty seconds, and drain on soft paper.

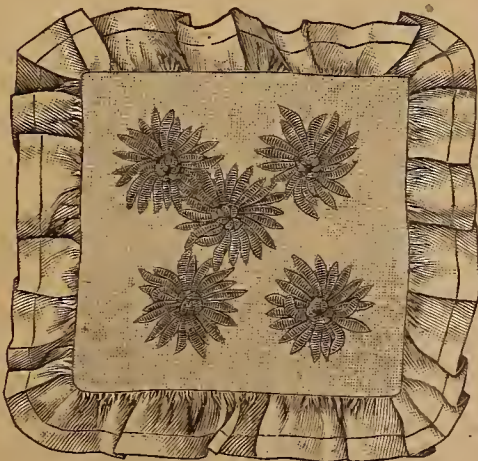
English Plum Pudding

THIS recipe has been used successfully for at least one hundred years. Chop fine one pound of beef suet. Mix together thoroughly one pound each of seeded raisins and cleaned and dried currants, half a pound of citron in fine shavings, one cupful of flour, one grated nutmeg, a teaspoonful of salt, and a tablespoonful each of mace and cinnamon. Beat the yolks of six eggs. Add five tablespoonfuls of sugar, and beat again. Then add four tablespoonfuls of cream and half a cupful of brandy or sherry (orange juice with grated rind may be substituted for the wine); pour over three cupfuls of grated bread crumbs. Mix the suet and floured fruit evenly together. Then stir in the egg-and-crumbs mixture, and, lastly, the whites of six eggs, beaten dry. Turn into a buttered mold or molds, and steam six hours. Do not allow the water to cease boiling during the cooking.

A Good Cough Remedy

INTO one pint of kerosene oil (coal oil) put five ounces of finely powdered camphor gum. Shake often, until dissolved, then add one half pint of sweet oil. It is then ready for use.

The above recipe appeared in FARM AND FIRESIDE a number of years ago under the name of "Camphorated Oil Liniment." The article was signed, I think, by Clara Sensibaugh Everts. She praised it so highly for everything for which a liniment could be used that I made some, and we never have been without it since. It is the best remedy for a sprain or lameness—in fact, for almost everything. My husband uses it on his horses, and a veterinary surgeon told him a short time ago that it was much better than another celebrated liniment that is



SOFA PILLOW IN SHADOW WORK

used by nearly every one. But the thing for which we prize it most highly is as a cough remedy. Apply it with a feather to the throat and chest (you can lay a cloth over, to protect the clothing, but it will blister if you wrap your throat up). It will relieve a cough and "loosen" it more quickly than anything else we have ever tried; also for a "tickling" in the throat. I think it would be excellent for croup. For a cold in the head, rub some on the nose and between the eyes. My husband thinks it has saved him from pneumonia, and because it has helped us so much I would like to "pass it on" to help others. Of course, every one understands that it is only for external use. MRS. L.

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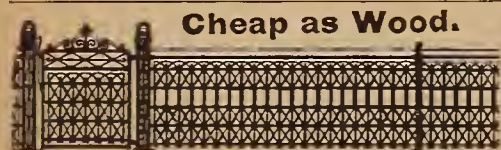
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Sunday Reading

Unto the Desired Haven

What matter how the winds may blow,
Or blow they east, or blow they west;
What reck I how the tides may flow,
Since ebb or flood alike is best?
No summer calm, nor winter gale,
Impedes or drives me from my way;
I steadfast toward the haven sail
That lies, perhaps, not far away.

I mind the weary days of old,
When motionless I seemed to lie;
The nights when fierce the billows rolled.

And changed my course, I knew not why.
I feared the calm, I feared the gale,
Foreboding danger and delay,
Forgetting I was thus to sail
To reach what seemed so far away.

I measured not the loss and fret
Which through those years of doubt I bore;

I keep the memory fresh, and yet
Would hold God's patient mercy more.
What wrecks have passed me in the gale,

What ships gone down on summer day;
While I, with furled or spreading sail,
Stood for the haven far away.

What matter how the winds may blow,
Since fair or foul alike is best;
God holds them in His hand, I know,
And I may leave to Him the rest,
Assured that neither calm nor gale
Can bring me danger or delay,
As still I toward the haven sail
That lies, I know, not far away.

—A. D. F. Randolph.

True Religion

TRUE religion can make the soul happy in the absence of a thousand supposed requisites to felicity. In poverty there is no want which it cannot alleviate; in sickness, no pang which it cannot relieve; in reproach, no stain which it cannot wipe away; in bondage, no chain which it cannot lighten; and in death, no sting which it cannot take away. It brings a contentment which blesses poverty, a patience which alleviates sickness, a brightness which pours confusion on slander; a freedom from the bondage of corruption, which makes the rod of oppression light; a faith by which death is vanquished; and, in the latter end, it has "fulness of joy, in God's presence, and at his right hand pleasures forevermore." With what eagerness, then, should the young seize this "pearl of great price," this "one thing needful," this "good part which shall never be taken away?"—Thomas De Witt, D.D.

Missions a Century Old

THE year 1907 will mark the completion of the first century of Protestant missions in China. In 1807 Morrison sailed for China and labored for many years without a convert. In 1843 there were twelve missionaries, and only six converts. In 1863 there were less than two thousand converts; now there are 150,000. The missionary force now numbers 3,270 persons, and represents seventy-eight societies. This missionary body is preparing to celebrate the centennial by a general conference at Shanghai. Ten days will be spent in reviewing the ground won and laying plans for the future.—Christian Work and Evangelist.

A Little Boy's Sermon

ONE Monday a little boy, who had been to church the day before, thought he would have a church of his own. He arranged his four sisters in front of him, then stood up on a stool and spoke very loud. This is part of the sermon that he preached:

"This is to be a 'mind-mother' sermon. There are two ways in which you ought to mind everything she says: 'Mind her the first time she speaks. When mother says, 'Mary, please bring me some coal or water,' or 'Run to the shop,' don't answer. 'In just a minute, mother.' Little folks' minutes are a great deal longer than the ones the clock ticks off. When you say 'Yes' with your lips, say 'Yes' with your hands and feet. Don't say 'Yes' and act 'No.' Saying 'Yes, in a minute,' is not obeying, but doing 'Yes' is.

"Mind cheerfully. Don't scowl when you have to drop a book, or whine because you can't go and play. You wouldn't own a dog that minded you with his ears laid back, growling and snapping. A girl ought to mind a great deal better than a dog."—The Watchman.

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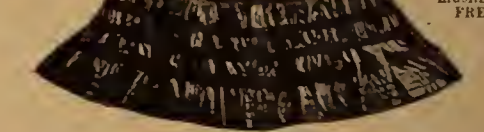
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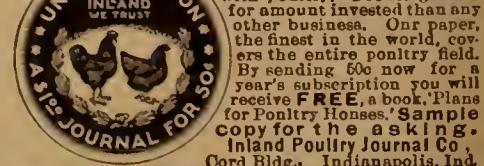


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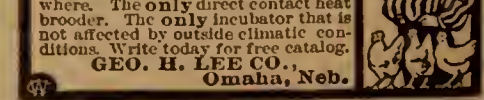
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Miss Gould's Practical Fashions



No. 873—Plaited Shirt-Waist

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of twenty-seven-inch material, or three and one half yards of thirty-six-inch material

BROADER shoulders characterize the first of the spring shirt-waists. The model here illustrated is one of the smartest designs for a linen shirt-waist for spring wear. It is made with three deep plaits on each shoulder, back and front. At the back the plaits taper toward the waist. The pattern provides for a high band turn-down collar, but the waist is also finished with a neck-band so that it may be worn with a stiff linen collar if preferred. The regular shirt-waist sleeve is used, finished with a straight cuff. The fastening of the waist is in the front through the center box plait. The stitched plaits and the broad shoulder line give this shirt-waist an air of newness and smartness. Though this spring the lingerie waist will be more in vogue than ever, yet the tailor-made linen waist will also be much in demand.

THE best dressed children are those the most simply dressed. This every wise mother knows. Perhaps that is why the Madison Square patterns for children are such favorites. The box coat on this page for a small girl was designed with a view of being serviceable for both winter and summer wear. It is made with an adjustable shield. When the weather is cold the shield is worn, and the shawl collar, buttons and cuffs are of fur. If the coat is to be worn during the spring or summer the shield is left out, and the collar and cuffs are of lace or embroidery.

A good style Russian suit for a boy, also illustrated on this page, is made with a panel front. The fastening is at the right side, giving a double-breasted effect. The belt slips under the front panel, and fastens at the right side. The suit is made with a shallow front yoke, a band collar and a full one-piece sleeve. There are full knickerbockers with the pattern.



No. 877—Box Coat with Adjustable Shield

Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four and one half yards of twenty-seven-inch material, or two and five eighths yards of forty-four-inch material, with one half yard of contrasting material for collar and cuffs

EVEN if it is not new, there is nothing like cotton crepe for making a kimono. It comes this year in a greater variety of colors than ever before. The design here illustrated shows a kimono made with a yoke, back and front. The front facing and the collar are in one. The pattern is so perforated that it may be cut for a short kimono sacque if preferred. Warp printed ribbon in a flowered design will make a pretty finish for the collar, cuffs and front facing. Lightweight French flannel may also be used for this kimono, or albatross. For very warm weather use white figured swiss, with bands of flowered ribbon.

The pattern for the misses' skirt illustrated on this page is sure to prove most serviceable. The skirt is a stylish seven-gored plaited model. The front gore is narrow. There are two plaits on the front edge of the side and back gores. The plaits graduate, widening out toward the bottom. The skirt fastens at the back under two inverted plaits.



No. 875—Kimono with Yoke (long or short)

Pattern cut for 32, 36 and 40 inch bust measures, small, medium and large. Quantity of material required for medium size, or 36 inch bust, seven and three fourths yards of twenty-seven-inch material, or five and one half yards of forty-four-inch material, with one and three fourths yards of contrasting material for trimming



No. 874—Box-Plaited Dress

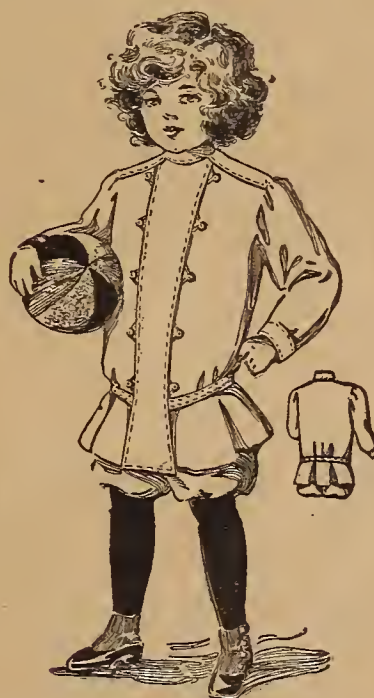
Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four and three fourths yards of twenty-two-inch material, or three and one fourth yards of thirty-six-inch material

Box plaits are the feature of the small dress for the small girl here illustrated. The little waist has a full pointed yoke, back and front. The box plaits extend from this yoke to the belt. In the front they are trimmed with buttons. The five-gored skirt made with box plaits to correspond with those in the waist is fastened to the waist under a pointed girdle belt. The skirt has full side gores, two inverted plaits at the back, and is finished with a hem. The bishop sleeves are finished with a strapped cuff fastened with a button. A stitched band of the material or coarse lace insertion may be used as the trimming to outline the yoke. Mercerized madras will be found a serviceable and pretty material for this dress, or gingham, zephyr, or piqué may be used. The front box plaits, the cuffs and girdle belt should be trimmed with big pearl buttons.



No. 876—Misses' Seven-Gored Plaited Skirt

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, five yards of thirty-six-inch material, or three and three fourths yards of forty-four-inch material



No. 878—Russian Suit with Panel Front

Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, five yards of twenty-two-inch material, or three and one fourth yards of thirty-six-inch material

PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the number and size of the pattern desired. Our new catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

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grand or plain, is its spacious midway hall, which shares with the broad gallery the privilege of being the principal living room of the family. Its wide front door stands always open, and an open door at the rear end, also, invites through the breeze, by which alone the scorching summer heat is made endurable. No one ever knew a day so warm that the hall of the house was not a haven of comfortable coolness.

When the farmer's family is so large that most of the rooms of the house are appropriated for beds, the hall becomes the parlor, and has in it the piano, the old-fashioned sofa and easy chairs, while its walls bear the family portraits and the shelves, that hold the books constituting the family library. You must remember that the dimensions of this hall are always on a large scale, to appreciate its charm as a living room. In one which I know, and not by any means the largest, seventy-five yards of matting are needed to cover the floor. When the piano, portraits and library have a room of their own, the front part of the hall becomes the general lounging place for the young people of the family when they are indoors, and the rear part may be used for the family dining room, separated by half-drawn curtains from the front. The "galleries" (or porches) usually extend across the front and back of the house, and often along one or both of the sides, and on these the members of the family spend their leisure time during these months of the year and more. The home is built, you see, for comfort during these months. What its breezy area is during the remainder of the year I do not like to say. Admiring the home of a friend, whom I visited in the heart of July, I remarked, "But I fear you are somewhat chilly here during the winter." A shudder passed over her. "Oh, do not speak of it," she said; "it is dreadful!"

FURNISHINGS OF THE HOME

You will note, if you are privileged to share the family life of this farmer for a time, that the furnishings of his home are plain, and that most of the furniture is old, of quaint pattern, but of solid manufacture. In the bedrooms there are old four-post bedsteads, heavy wardrobes (for the closet so dear to the Northern housekeeper's heart is unknown in a Southern home) and bureaus huge and unwieldy. The floors are often covered with matting or finished with paint or oils. Carpets are but seldom used, but rugs laid upon the matting or the painted floor are much in favor. The huge caverns of fireplaces are shut from view during the summer with close-fitting boards covered with wall paper, a fashion once common in country homes of the North, but now obsolete there.

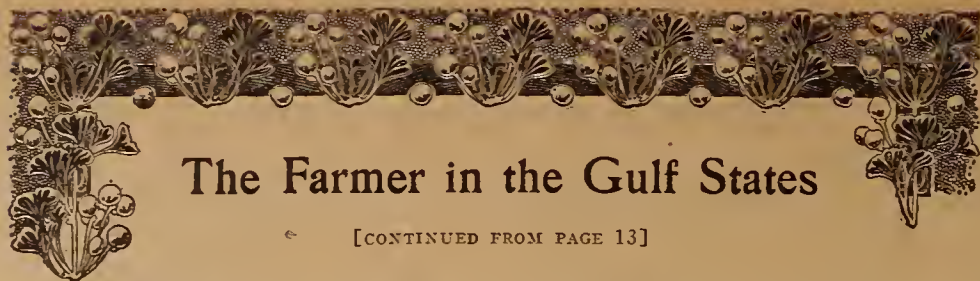
One thing the Northern traveler notes in journeying through this section, is the almost universal lack of screened doors and windows even in the most handsome houses. In a land where insect life is as abundant as here, and known to be so pernicious, if not poisonous, in its attacks upon man, this want of protection against it is surprising. Nevertheless, the explanation is simple, and found in the fact that the Southerner is always and everywhere a creature of habit. What he has done, what his forebears have always done, that only is it incumbent upon him to continue to do. If his father and grandfather did not have screens of wire netting for his doors and windows, unquestionably such protection is still supererogatory and needless.

The wide-open doors, that offer you generous hospitality as you approach the old home, extend like invitation to all living things, be they endowed with four feet or a hundred—as witness the centipede that I found one day perambulating across my friend's parlor table. A closed screen door would wear an inhospitable aspect, and furthermore would interfere with the pet dogs and cat, and, besides, the baby would not like it. And if the windows were thus barred, the children could not climb in and out at will, and the housewife could not air her pillows over the sill, as her grandmother did. A canopy of mosquito bar serves to protect sleepers more or less effectively from attacks of bloodthirsty insects, but for the waking hours the farmer and his family take their chances with flies, wasps, hornets, spiders, mosquitos, gnats and the like. As for the flies, they are everywhere, and but for the time-honored institution of a bough waved over the dining table by a young dandy, they would have a better chance at the dinner than the family.

The recent prosperity of the South, owing to the better cotton prices in the last three years, has brought about much repairing needed for these old homes, and not a little improvement in the purchase of new articles of furniture. But the repugnance to setting aside old things for new is ingrained in the Southern character, and those things that are wholly new are regarded with much suspicion. Nevertheless, when an innovation brings a keen sense of supplying a need, it is often welcomed. You may visit many a farm house where everything is carried on in the most primitive manner, even to cooking over the fireplaces. But do not be surprised if you see a telephone in the front hall!

THE TOOLS HE USES

Among the important improvements brought into the life of the farmer of the Gulf states by the more prosperous conditions of recent years are better tools to work with. As a rule, the small farmer here is half a century behind the farmer of the North in the use of agricultural implements. You will see him using plows, cultivators and harrows of the old cumbrous type discarded in the North during the sixties. But the disk plow, the riding cultivator, and like improved implements whose use tends so much toward the lessening and the cheapening of labor, are now



The Farmer in the Gulf States

[CONTINUED FROM PAGE 13]

being brought into the country by well-to-do farmers. That this improvement has been in progress for some time is proved by the fact that the census of 1900 showed an increase for Alabama and Mississippi, during the decade previous, in the value of farm implements and machinery, that largely exceeded the increased percentage value of all other forms of farm property.

And yet in the most important line of the Gulf state farmer's work, the culture of cotton, the improvements of machinery and method have thus far accomplished but little. Cotton is still almost universally planted by hand; it is cultivated mainly with the hoe, and at last is all picked by hand. The invention of a really successful cotton-seed planter, or of a picker that can be put to practical use, waits upon the genius of the future.

If we step into the woman's domain on the Gulf state farm we find the habit of clinging to old and imperfect means and methods of labor to be even more general. The inventions that have tended to lighten the toil of women—improved ranges, gas-line stoves, washing machines, wringers, and the like—are absolutely unknown. In the kitchen, as in the field, the reason is the same. The class of labor employed is so lacking in intelligence that it cannot apply new methods, even to its own great advantage.

THE FOOD HE EATS

Should you happen in at the Gulf state farmer's home near dinner time the first sound that greets your ears is the rap, rap that tells of the beating of biscuit dough. Yeast-risen bread is but little known in this section, the staff of life here taking the form of biscuit or of cornbread. Waffles and pancakes are also much used. The varied line of breakfast foods familiar at the North are quite unknown outside of the large towns of the South. The one of such foods in general use here is "grits," which seems to be a very coarse grade of cornmeal. Boiled or fried it usually forms a part of every breakfast, and often comes on the table for supper, also. Another breakfast dish which is a survival from ancient lines is home-made hominy, made by soaking corn in lye until the hull comes off, then washing it, and boiling it until quite soft. Eaten with molasses, it is highly approved—by the natives. For meats, the kind most generally used is salt pork. This is known in country stores as "meat," all other kinds being mentioned by their distinctive names. Our Gulf state farmer, residing usually some miles from town, does not often have fresh meat for his table, and as he seldom has opportunity to procure ice during the long hot season, he is quite indifferent to the deprivation. During the cooler months, whenever any farmer, negro or white man kills one of his animals, all of it that he cannot use is sold to his neighbors. There was a time, and not so very long ago, when every farmer of substance "put up" all the meat used by his family. He had his own smoke-house, wherein his store of cured meat was kept—always as carefully locked as his chicken house at night. Every farmer's wife raises poultry, and counts on both the eggs and the chickens as most important sources of food supply.

HIS GARDEN AND ORCHARD

The prolonged season of growth in his climate gives to the Gulf state farmer an unusual opportunity for garden making, but whether he enjoys a profusion of green vegetables from April to December depends upon whether he is willing to allot the necessary labor to it. Two crops a year is the rule here, these being planted in March and August, but successive plantings of special vegetables are necessary between these months to sustain the needed abundance. For, though your vegetables grow luxuriantly here, their season of fruitage is very short. This is because of the intense heat of the summer and the frequent "dry spells" that occur during that season. Nearly all the vegetables familiar in the North will grow here, but not all of them yield well.

The fruits in this farmer's garden and orchard—supposing that he takes the trouble to plant them—are plentiful and unfailing. His strawberries, raspberries and dewberries yield an abundance of delicious fruit. He cannot raise currants or gooseberries, but his blackberries bear well if the summer is not too dry. His peach trees, well cultivated, produce the finest fruit known. He can raise fine plums and apricots, but his apple trees seldom bear well. His pear trees often give him an abundance of fruit, but these, like the apples, are subject to blight.

The fig tree is indigenous, and produces abundantly, affording the farmer's wife a preserving fruit scarcely less valued than the native grape—the muscadine. This latter grows everywhere in the woods, its abundant harvest costing no more than the picking to rich or poor. Our farmer frequently experiments in the culture of Northern grapes—the Concord, the Catawba and others—but not always with fortunate results.

One well-known fruit, however, occupies an important place in his garden, and never disappoints him in its yield, and that is the watermelon. When it is ripe the entire

black contingent of the population suspends all other labors to feast upon it. It is worth it, they think, and I am not sure that they are not right.

The muskmelon ripens to green or yellow globes in this farmer's garden, also, but though its flavor leaves nothing to be desired by the consumer, its producer finds a distinct grievance in its short crop. Only by scientific and abundant cultivation can this vine be made to fruit heavily, as it is wont to do in the Northern states.

THE STOCK HE RAISES

Probably it is not much to boast of. In stock raising the Gulf state farmer has not lived up to his opportunities, and the tale has gone forth into other lands that his deficiency is a case of necessity, that he cannot raise stock at all for lack of feed, or because of the debilitating climate, or other imagined reason.

The fact is that the Gulf state farmer has a number of distinct advantages for the rearing of stock. The mild climate permits them to graze through the entire year, and when the grasses are eaten off, there are the leaves of the cane brake to fall back upon. Only a slight shelter from winter's storms is needed—most farmers, indeed, provide none—small creeks and branches everywhere give a good supply of water, while in the shade of trees that grow along these streams Nature has furnished the needed protection from the excessive heat of the sun. Against these things which favor the keeping of stock by lessening its cost must be placed the hindrance of occasional prevalence of the dreaded Texas fever, and a quarantine law which interferes with their shipment to the North. The Texas fever is caused by a tick, which can be exterminated in any district by frequent changes of pasture. This plan of fighting the insect goes against the deep-rooted habit of letting cattle raising alone, and the industry increases but slowly. Nevertheless, you may see here and there in the Gulf states herds of cattle that in both breeding and condition would do credit to the Devon hills.

A farmer working a farm of three hundred acres and employing fifteen hands on his place—counting in women and boys as well as men—furnishes to the assessor a list such as the following—I omit valuations—under the head of "live stock:" One team carriage horses, one saddle horse, four teams work mules, two cows, eight hogs. This number, meeting the farm's necessities and no more, fairly typifies the holding of animals by the average Gulf state farmer.

THE LABOR HE EMPLOYS

On these farms the question of labor is such a vital one that no sketch of everyday life thereon can ignore the individual adjuncts that furnish it. Negro labor is so universally the rule that all other kinds—as, for instance, the Bohemians and the Italians, lately introduced into the truck gardens of the Gulf coast and the fruit-raising sections of Louisiana—are mere accidents in comparison. The Gulf state farmer, in fact, counts on colored labor only, and adapts all his plans toward its handling.

On by far the larger proportion of Gulf state farms the system of share rent is employed. The farmer builds a number of cabins on his land, and rents each one, with a part of his farm, to a negro. The black man takes it with the understanding that his landlord will employ him and as many members of his family as may be needed in general farm work during at least part of the year. It is generally understood that the negro will be allowed to complete the work needed on his own "patch" before giving assistance to his landlord, but often a directly opposite agreement is made—to wit, that the negro will help in putting in or cultivating his landlord's crop before working his own. This is because the tenant under this system is so largely a dependant on the landlord. The latter contracts to furnish to the former all needed supplies of food, fuel and clothing—or credit for these supplies, which is the same thing—from the time the contract is formed—usually in January—until the crops have all been gathered. The landlord has by law a lien on the entire crop or crops until his share has been handed over to him, and, further, until his claim against the tenant for the value of supplies furnished has also been satisfied. In some cases it is preferred by both sides to rent land for a specified sum in money rather than for a share of the crop. The "cash renter" in his contract sometimes calls for a limited allowance of supplies between seed time and harvest, but not always. For this system is the choice of those negroes who, through diligence or good luck, have in some way got ahead. Others of these more fortunate ones demand definite wages, and hold themselves free to occupy cabins where they choose, and to supply themselves in all particulars.

The hours of labor on the farms of the South are always from sunup till sundown. As the red streaks of dawn appear in the east, the plantation bell, hung on a pole or tree near the "big house," as the negroes term it, is rung to arouse the workers from their sleep. By the time the sun is above the horizon, a troop of men and boys is

on its way to the fields. In times when work pushes, especially when hoeing is the order of the day, it is customary for the men and boys to go to the field without waiting for breakfast, this being brought out to them later by the women. The latter then take their places in the field, also. In the busy months the farmer himself rises as early as the negroes do, takes a cup of coffee hastily prepared for him, then mounts his horse and follows his men to the field, to assure himself that work is begun in the most effective manner and place. He then returns to breakfast with his family.

The bell calls the laborers from the field at twelve o'clock, and at one o'clock gives the signal for going to work again. During the hottest part of the summer the noon interval may be lengthened even to two hours. When the sun is sinking from sight in the West the clang of the bell closes the working day.

The negro puts in long hours at his labor, but his movements are slow and his measure of accomplishment small. He needs, too, as constant supervision as a child. These facts render his employment a constant exasperation to Northern settlers who must employ him; but the native farmer, accustomed to his foibles, manages to use him so as in the end to secure an efficient result. How he does it no mere spectator can fully understand. The spirit of goodwill that exists between the two explains much; and, for the rest, it must be remembered that no one can work with a poor tool except the man familiar with its handling.

THE GULF STATE FARMER HIMSELF

Typically considered, he is a very fair specimen of a man. He has not made his way upward from a distinctly lower plane of civilization, as so many well-to-do farmers of the North and West have done, for his ancestors have been gentlemen for generations. His bearing shows this; also his accent and modes of speech, provincial though these may be. He dresses fairly well always, and is willing to expend a good deal of money to enable his family to dress well. He is accustomed to hold a prominent position in the community wherein he lives, and although this community may be small and scattered, he holds that he owes it to this position to present a good appearance when it is possible to do so.

A general opinion prevails that this farmer never does any work, but this is a mistake. In this matter he is governed by the necessities of the case. If he is, managing a small farm, employing but one or two hands, he often holds the plow handles himself, and is ready to be proud of his straight furrows. If, however, as in the majority of instances, he has a large farm, and employs a number of hands, he thinks that he is well occupied in directing them.

The Gulf state farmer needs the possession of business ability as well as farm knowledge. He must not only plan for the cultivation of his large farm, and guide and direct his too-often imperfect aids in this work, but he must also provide for all their varied necessities through the year, taking thought for them where they would never take thought for themselves. If low prices and bad weather reduce his farm's profits to a minimum in any year, he must bring his credit into use to carry his family and his tenants over until another season brings better things. For years, in the hard times now gone by, he sustained himself and them solely on his credit, bearing a heavy burden of debt over from season to season with unflinching courage. Now, happily, he has lifted that weight and freed his place from the drain of a mortgage and money lenders—a deliverance that he appreciates to its fullest extent.

A frequent unique adjunct of our farmer's life is a plantation store, brought into existence by the needs of his tenantry and family and their distance from town. In this he keeps a supply of meal, flour and salt meat, and also of canned goods. A small stock of boots and shoes is also necessary, some prints and gingham, notions, and some coarse grades of ready-made clothing. This store proves a helpful source of income, since through it the money which the farmer pays out to his negroes is nearly all brought back to him, and quite a little further trade is drawn from adjoining farm residents. Every large farmer has also a cotton gin, where the cotton within the circuit of some miles is prepared for market.

The family relations of the Gulf state farmer are usually happy. He probably married young, according to the custom of the country, and his wife has been a faithful and cheerful helpmeet. They have usually quite a large family, and the young people make the old home ring with laughter and music when they are in it. They have to be sent away from home to be educated; but, happily, the improvement of Southern schools in recent years renders it possible for them to be trained under the protection of home sentiment, which to their parents means much.

This farmer has his own political opinions, and defends them sturdily, for which you must respect him, even if you do not agree with him. He is not much of a reader, but he always takes two or three newspapers, and knows what is going on in the world. His wife and daughter take a fashion magazine and perhaps one of the "all-story" kind now so prevalent. The contempt of the head of the house for this kind of reading is a thing beautiful to behold.

This farmer is not often a religious man, but his wife is always a church member and his respect for her religion is sincere and unfailing.

In a word, the Gulf state farmer, whatever his shortcomings may be, is a good man to know and one to be remembered with sincere respect.

Right of Eminent Domain—Steam and Electric Railway Have Same—Effect of Written Contract

A Subscriber, Pennsylvania, writes: "(1) Can a railroad company compel A. to sell a right of way through his land, where it wishes to extend a branch road one or two miles from the main railroad? (2) Is the law for an electric road the same as for a railroad, where it wants to extend a branch from the main road to convey coal to the main road? If not, what is the difference? (3) If A. has a written contract with a railroad company stating where railroad shall pass through his land, can A. compel them to pass through that part of land? If company should sell its right of way, would it make any difference in the contract?"

(1) The building of a switch is considered as much of a necessity among railroads as the main line itself, so far as the right to condemn land for that purpose exists. Of course, all such extensions must be those that are included within the charter. It might be, if a railway desired to extend a line to a new coal field, such extension would not merely be held a switch that was necessary for the original route. Before it can be condemned the charter would need to be amended so as to include such extension. (2) As to the right of condemnation, the power of the electric suburban railway or traction company is the same as a steam railway. (3) If a railroad company enters into a written contract to pass through a certain portion of a person's land, it could be held to the fulfillment of that contract; but this would not necessarily prevent the company from condemning another right of way, provided, however, the railway could show to the court that such other right of way is proper and necessary in the rightful management of the railroad. The railway company, like an individual, is liable in damages for any breach of its contracts. While it might not prevent a condemnation of the new route, yet the company would be liable if it failed to take the route it had contracted so to do. Whether or not a company to whom the first company sold its right of way could be held liable would depend somewhat upon the conditions of the contract itself. If the second company should assume all liabilities in its purchase, then such second company would be precisely in the shoes of the first. In all cases where the parties are unable to agree, the railroad condemning the property must file its suit in court, and there the owner is entitled to full compensation for the land actually taken, and also to all damages he may sustain by reason of such land being taken as affecting his remaining lands, and the railroad must pay all the costs of the litigation, excepting the attorney fees of the landowner.

Inheritance

S. K., Ohio, writes: "If a man dies, leaving a wife, but no children, owning land, part of it coming by inheritance, and part by purchase, who gets it? The wife or the brothers and sisters of the husband?"

In Ohio if a husband or wife dies, leaving no children and without a will, owning real estate that came by inheritance, the survivor gets a life estate in the entire estate only. If the real estate that is owned by the deceased has been purchased by such deceased person, then the survivor gets the entire estate. If it came by inheritance, the wife would hold it for her lifetime and then it would go to the heirs of the deceased husband.

Established Line Fence—Inheritance—Doctrine of Survivorship—Slander in Letter

A. S., Ohio, has these queries: "(1) A fence is established on what is supposed to be the line between A's farm and B's. Twenty-one years elapse. B. has sold out to C., and A. to D. In surveying D's land it is discovered that the fence between D. and C. is not where it ought to be by about one rod. Now, can C. make D. move the fence on to where the surveyor says the line really is? The land is in Kansas. (2) If a piece of land in Ohio is deeded to J. J. and M. J. (man and wife), and either one dies, does the other hold interest in the land? There are no children. (3) If a man calls you bad names in a letter he sends you, sealed up through the mail, is he liable to prosecution?"

(1) The general rule of law is that when a fence is located on what is agreed to be a partition line between adjoining farms, and so remains and is so treated for twenty-one years, then it becomes the line in fact, whether it be properly upon the surveyed line or not. If the parties in putting up the fence, however, did not know that it is the line, but

The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail.

merely put it there as a makeshift until the line is properly determined, then of course the fact that it would remain there any number of years would not establish the right. (2) The doctrine of survivorship—which was that if two persons owned real estate, the one surviving should get the entire estate—is the law of but very few, if any, of the states of the Union. It was formerly the common law where the instrument could bear the construction of the joint tenancy, but in Ohio, if the deed was made to man and wife, and there were no children, the survivor would get the entire estate not from the fact that the deed was made jointly, but because the survivor under our statute would get the entire estate. (3) The sending of a letter containing a libel to the party libeled might, it has been stated in a few cases, be sufficient to found a criminal action upon, because such sending would tend to provoke a breach of the peace. But the sending of a letter containing libelous matter to the party himself, where no third party hears or reads it, will not form a basis of the civil suit; but in order not so to do, the party sending the letter must not permit any one to see it. Where a person, before posting a letter, had it copied, the courts hold that this was a publication by the sender to his own clerk, and therefore he was liable; and likewise, where the sender had read the letter to a friend, he was held liable; but if the person receiving the letter afterward lets it go into the hands of a third person, this is matter for which the sender is not responsible. Yet if the sender knew that some third person would be sure to read this letter, as where he knew that the clerk of the party to whom it was sent always opened the letters, this would be a slander, and a publication for which the sender would be liable.

Inheritance—Administration of Estate—Transfer of Land on Tax Duplicate

C. B. T., Ohio, writes: "A. is the father of B., an only child. B. got married, and moved in with A., the father. B. boarded and clothed A. B. got the proceeds of the farm. B. paid the taxes. A. died without a will. B. is the only heir. B. remained on the farm without having the estate changed from A. to B. B. died without a will, leaving a widow and children. Who are the lawful heirs to the farm? Can the widow hold her dower in said farm? Can the widow stay on the farm one year? If so, does she get the crops on the farm in that said year? In settling it up, who must the administrator be appointed for, A. or B.'s estate? The deed for the farm is in A.'s name. In this case does the widow have first choice of being administrator? If not, who has? What will the law give the widow in this case?"

The mere fact that the land was never transferred from father to son would not affect the son's estate in the property, neither would it affect the son's wife in having a dower right in such property, provided, of course, that the son outlived the father. If there are no debts belonging to the father's estate, then there is no need of any administration on such estate, and the only estate to be administered now is the son's, and the wife has the first right in such administration. By the common law a wife was allowed to remain in the mansion house forty days until dower can be assigned. In Ohio this extends to one year, provided the dower is not sooner assigned. This does not extend to the right of the crops on the farm. All the crops that were sown at the time of the death of the son should be administered on and be distributed as the law provides. The widow usually gets a sufficient allowance to support her one year, and she gets one third of the personal property absolutely if there are children.

Contract with Feeble-Minded Person—Antenuptial Contract—Stamp on Will

A. S., Ohio, writes: "(1) If a person should buy anything of an old person of feeble mind, but who had not been declared insane by law, would the sale be legal? (2) A. made an agreement with B. before marriage as to disposing of property, B. to receive so much

at death of A., and the rest to go to his heirs. Is such an agreement drawn up by a lawyer and signed by both parties valid? (3) Would a will dated in 1900 have to have revenue stamps attached to it to make it legal?"

(1) The presumption is that so long as a person has not been adjudged insane he is sane, and is bound by his contracts; but this presumption might be overcome if the person dealing with the feeble-minded person should know that the person is feeble minded and should in any way take advantage of such person's feeble-minded condition. If the contract was perfectly fair and not to the disadvantage of the feeble-minded person, it would be legal, but if the party knew that such person was feeble minded, and took advantage of his condition, and made a contract that was wrongful, it would be set aside in a court of equity. (2) Antenuptial contracts—that is, contracts that are made before marriage—if no advantage of either party is taken, are held to be valid and binding on the parties to such an agreement. (3) I never knew that the internal revenue act of 1900 required revenue stamps to be attached to a will, and my judgment is that the will would be legal even if no stamps be attached. I do not think that the act required it.

Husband Giving Wife Note

A. B., Ohio, writes: "A., having a farm bought from heirs making a large debt, married B., she having a child by former marriage. She put her money in the farm, he giving a note with his name on it. Would it be legal in case she died before him? They have no children now. Could his brothers and sisters take B.'s note and not give B.'s child B.'s money which is in the farm?"

In Ohio and in most other states contracts between a husband and wife stand in law the same as other contracts, unless it be shown that by reason of the marriage relation undue advantage is taken in the making of such a contract; therefore, the husband's note given to the wife is perfectly legal, the same as any other note. It would be barred if not collected within the time allowed by law. If the husband died, the note would be a good claim against his estate.

Dower Right

T. A. M., Rhode Island, inquires: "What are the laws of Rhode Island in regard to a wife inheriting her husband's property? Will she have one third for her own use, or only the interest of one third during her life? If there are grown children by a former wife, and the second wife has no children, what then will be her share?"

In Rhode Island the common law right of dower exists, and the wife merely has a life estate in one third of the real estate during her lifetime. Especially would this be true where the husband leaves children by a former wife. The widow would get one third of the personal property absolutely.

Divorce for Insanity—Support of Children

E. E., Georgia, writes: "Can I get a divorce from my wife who went crazy, and was sent to the insane asylum in September this year? We have two children—a girl four years and a boy one year old. Her parents have taken them, and will not let me have them, but want me to support them. Her parents abuse me, and always have since we were married. Will the laws of Georgia give me a divorce? The doctors say she may never get her right mind any more. Can I get the children? If so, how? If not, can they make me support them?"

There are but four states in the Union in which a divorce can be gotten where one of the parties becomes insane. In Florida it is granted in the case of incurable insanity for four years. In Idaho it is granted where the insane person has been regularly confined in an insane asylum for at least six years next preceding the commencement of the action for divorce. In Indian Territory, where the other party has become permanently and incurably insane, a divorce is allowed, and in Washington, where the insanity has existed for ten years or more, the court in its discretion may grant a divorce. It is likewise generally held that an insane person cannot apply for a

divorce, Pennsylvania being the exception in allowing the guardian to make such application. In the above case the parent, if a suitable person, would most assuredly be entitled to the custody of the children.

Legal Marriage, etc.

C. H. C., Florida, writes: "A man married a woman in Pennsylvania, and after several years her first husband served papers for a divorce. She married believing he had one. Please tell me whether the last marriage was legal, and whether she could sue any one for alienating the man's affection, after not marrying over again, but living together as man and wife?"

If the divorce was not granted before the ceremony of the second marriage was performed, such second marriage would not be legal unless the parties thereafter cohabited as man and wife a sufficient length of time that there might be a common law marriage. Unless such divorce between the parties to the first marriage has actually been granted, or although the marriage ceremony may have been invalid, if the parties were in fact divorced, and thereafter one of them lived for a number of years in the marriage relation with a third person, that one would become in fact the husband or wife of such third person, and entitled to all the rights belonging to a person in a married condition.

Right of Tenant to Remove Fixtures, etc.

O. V. S., New York, wants to know: "If A. hires to B. one year, and lives in B.'s tenant house, and buys a pump and a lot of hen wire, can he take them away with him at the end of the year if B. does not buy them of him?"

The law in reference to the removal of what may be termed fixtures placed on real estate by a tenant is very liberal in favor of the tenant; and if the tenant removes the same without materially affecting the real estate before his tenancy expires, his right to do so is very clear. The tenant, however, might have some trouble if he waited to remove the article until after his tenancy had expired, for then he has no right to go back on the premises. Generally speaking, a tenant may remove whatever he has placed on the real estate for his temporary convenience.

Information with Reference to an Estate in Pennsylvania

J. A. P., British Columbia—The judge of an orphan's court would probably be the person to be addressed in reference to the information desired. Perhaps you would get a better answer if you would state the facts fully and put them in the hands of some attorney in Philadelphia, and give him a remuneration for the time expended in research. You will find the firm of Sharpe, Alleman and Moise, Philadelphia, a reliable firm.

Right of Tenants in Common

M. A. S., North Carolina, writes: "Two sisters own half shares in a little twenty-acre farm with small buildings, valued at about two hundred dollars. One sister married and left the place. The other sister runs the home, keeps up all the expenses of repairs, taxes and insurance on the houses. The married sister never at any time exacted any rent but came home at intervals and spent some time and always got a part of anything she wanted. Now this farm was never at any time self-supporting; other lands were always farmed to obtain a living. The sister who left the farm was left a widow and dowered on her husband's home. She died lately, and left no children and no will. Can this land be sold without the consent of the joint owner? And can she collect any rebate for taxes on the place and collect anything for repairs on the house and for digging a well?"

The general rule is that if one tenant remains in possession he is entitled to one half of the expenses that he puts on the property, and would be obliged to pay one half of the receipts arising from the property. If these two offset each other, there would be nothing to account for between the parties, and it might be inferred from the acts of the tenants in common that it was the understanding that the receipts should pay the expenses. Of course, when one tenant died, then the share of the deceased tenant will descend to her heirs, just the same as other property. This property could be sold, the heirs of the deceased sister could file a suit in partition and have it sold, or, if the deceased sister left any debts, her administrator could have the land sold.

James M. Rockel

Make Dairying Pay

Just consider the part the cow takes as a producer for the farm. She not only furnishes in milk many times her own weight in a single year, but reproduces herself annually, and her off-spring is either sold to the butcher or raised to go through the same process of production for perhaps twelve or fifteen years to come. But to keep cows or run the dairy requires care. You can't have milk without furnishing its equivalent—feed. And the skillful dairyman will carefully increase the ration for his cows until he finds the limit of each animal's digestion. At this point is where the profit lies.

Difficulties, however, are often encountered in arriving at the digestive capacity of a dairy cow. Going off her feed, indigestion, Milk Fever, Mammitis are the consequences, but where the proper tonics are administered the digestive organs are strengthened and improved and the largest possible amount of food is digested and converted into milk.

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Is the medicinal stock tonic and prescription of Dr. Hess (M. D., D. V. S.). Is especially designed to make cows give more milk, market stock grow faster, horses do more work, and to relieve minor stock ailments. It is not a food in itself but makes all the food of the farm produce more milk, more meat and more work.

Professors Quidman, Winslow and Finlay Dun, the most noted medical writers of the age, tell us that bitter tonics improve digestion, iron makes blood and the vitals assist nature in expelling poisonous material from the system. Such ingredients make up Dr. Hess Stock Food—Isn't this pretty strong proof? Sold on a written guarantee.

100 lbs. \$5.00; 25 lb. pail, \$1.60. } Except in Canada and
Smaller quantities at a slight advance. } extreme West and South.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength in the pond. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic and this paper is back of the guarantee. Free from the 1st to the 10th of each month—Dr. Hess (M. D., D. V. S.) will prescribe for your ailing animals. (You can have his 96 page Veterinary Book any time for the asking. Mention this paper.)

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This 1900 Gravity Washer Saves 50¢ Test It a Month FREE. Then, Pay for it, —as It Saves for You

You can wash a tubful of clothes—the dirtiest kind—spotlessly clean in six minutes, with a 1900 Gravity Washer.

That saves half your time. You don't have to bend and rub and scrub. That saves your back. And you needn't use nearly so much soap. So you save money. Is such saving worth 50¢ a week? But I don't want you to take my word for this. Prove it yourself—in your own kitchen—with your own washing.

Test a 1900 Gravity Washer a month at my expense to find out what it will do. Send for my new Washer Book. Read particulars of my offer. Then say you are willing to try a 1900 Gravity Washer.

I will send one to any responsible party, all charges paid. I can ship promptly at any time. So you get your washer at once.

Use it a month. Do all your washing with it. And if you don't find the washer all I claim—if it doesn't save time and labor and money for you—if it doesn't wash your clothes faster, and better, and more economically—don't keep it. Pay nothing. I won't find any fault.

For the trial is FREE. If you want to keep the washer—and you wouldn't be without it after you see, and know, all it is, and all it will do—you can pay me as it saves for you. So much a week, or so much a month—suit yourself. Is this a fair proposition?

I have a big factory—the largest of its kind in the world—where I make nothing but washing machines. So far as I know, my factory is the only one ever devoted exclusively to the making of washers.

And I have to keep my factory going the year 'round to keep up with my orders. Even then I can't always keep up. So you ought to write me right away if you want to try one of my washers. I've sold half a million already.

Over half a million pleased women in the United States and Canada can tell you what my washers will do. They can tell you that you can wash a tubful of clothes spick-span clean in six minutes by the clock, with a 1900 Gravity Washer.

All you do is start the Washer going with a little push. Then you keep it going with little gentle pushes and pulls. Gravity does the rest—all the hard work—and, in six minutes—there you are! with a tubful of clean clothes. There isn't anything about a 1900 Gravity Washer that can tear clothes.

It doesn't wear them out. It doesn't pull off buttons nor split them in half.

"Tub rips" and "wash tears" are unknown with a 1900 Gravity Washer.

You can wash the finest linen, lawn and lace and never break a thread.

But test a 1900 Gravity Washer for yourself and see how it works.

Write for my book today. It is FREE. Just your name and address on a post-card gets it.

Mail your request to me now and I will send you the book, postpaid, by return mail.

You ought to have this book, whether you want a washer or not.

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Hundred years coming, here at last, full grown—so startling will say it's impossible—miracles don't happen, but wait, don't worry.

LADIES, YOUR PRAYERS ANSWERED—THERE'S NO MORE WASH DAY!
GLORY HALLELUJAH! IT'S DEAD! LAID AWAY! WIPED OUT FOREVER.



Washing machine swallows wash boards.

The world's watched for the man to end wash day in two. He lives—taken more than half—left only minutes—cut so much wash day's all over, changed—there's new way cleaning clothes—different from anything known—new principles, ideas, methods, NEW EVERYTHING. Wonderful, but true, family washing cleaned with no more work than getting a simple meal, less time—no rubbing, squeezing, pounding, packing, pressing, no injury—no drudgery—that's past. Good-by wash boards, washing machines, laundries—throw them away—the EASY WAY is here to bless humanity. Women have prayed for death of wash day—for clean clothes without rubbing—ruining health, looks—when they could wash, get dinner, see friends, indulge in recreation without fatigue—when women thought no more of washing clothes than to get a simple meal. That glorious day has come. The world's full wash boards, so-called washing machines, yet wash day same as ever—still long, dreary day—no easier, no shorter, no better. Use wash board or washing machine, it's drudgery, long hours, hard work—backache—a day no woman forgets. Invention that killed wash day named EASY WAY—name tells whole story—easy on clothes—easy used—kept clean—handled—easy on women—makes washing easy—easy to buy and sell. Not called a machine—powers inside concealed—caution the way it gets dirt—has awful appetite for dirt—increases more it gets—goes after all the dirt in all the clothes at same time—little, but mighty—silent, but powerful—uses no spirits, yet works in darkness. OPERATED ON STOVE—move knob occasionally—that's all—scarcely anything to do but wait between batches—child can do it. All iron and steel—always ready—sets away on shelf. Entirely unlike old methods. Verily, wash day is dead—EASY WAY settled that—woman's joy, satisfaction, their God-send. Less than an hour cleans washing which before took all day—cleans all clothes, finest laces, curtains, etc., in about one-tenth time without rubbing, squeezing, packing, pressing—without chemicals to injure

goods. Saves 62 days drudgery yearly—makes woman's hardest work easiest household duty—saves clothes, labor, fuel, health, looks. Surprises all—sounds strange, is strange, but listen, it's no experiment, going on daily. You can do it.

MRS. FRITTER, Norwood, writes:—"With EASY WAY I clean a week's washing in less than an hour without rubbing." W. BROWN, Ohio, writes:—"Wash day now wash hour—EASY WAY does the work with perfect success." J. H. BARRETT, Ark., after ordering 38 Easy Ways, says:—"I don't understand why it does the work, but it does. You have the grandest invention I ever heard of. People are skeptical; have to be shown." J. W. MYERS, Ga., says:—"Find check to cover one dozen 'Easy Ways.' Easy Way greatest invention for womanhood, forever abolishing miserable wash day. Saves me turning old washer for hours. I am ready to have old washer accompany all others to the Dump. Sells itself." I. BECK, Ga., writes:—"Enclose order. Find Easy Way as represented. Worked 4 days and have 15 orders." J. T. PEAY, N. C., says:—"Been out 2 days—sold 1 dozen, for which enclose order. Everybody is carried away that sees it work." CHAS. BOWLES, O., writes:—"Where tried have given general satisfaction." Guaranteed, everything proven, old house, responsible, capital \$100,000.00. Price only \$5.00 complete, ready to use—sent to any address. Not sold in stores.

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Send postal card anyhow for full description, valuable information, testimonials, amuse copyright, "Woman's Farewell." All free.

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AGENTS PORTRAITS 25c, FRAMES 15c, sheet pictures 1c, stereoscopes 25c, views 1c. 30 days credit. Samples & Catalog Free. CONSOLIDATED PORTRAIT, 290—31 W. Adams St. Chicago

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Wit and Humor

A "Rare Compliment"

NEAR the Hole-in-the-Wall country, in Wyoming, there is a peppery old cattleman whose range is as dear to him as his life, and from whose point of view a sheepman is a Pariah. His nearest neighbor is a strenuous and belligerent widow who keeps sheep. Hence the line between their two ranges is as clearly defined as was the dead line at Libby prison.

Upon one occasion, however, the widow's sheep strayed upon the cattleman's range, and the old rancher's rage was great. He denounced her as a "trollop." This epithet as applied to herself came to the ears of the widow, and, vowing vengeance, she hurried home to search for the word in her dictionary. But her dictionary knew naught of "trollops," so she sent away for a later edition and had it freighted



—London Illus.

HOW A BLACK CAT TURNED WHITE

in. The new dictionary, when it came, was as silent upon the subject of "trollops" as the old one, so the widow saddled her horse and rode some twenty miles to consult a ranchman whose educational advantages had been somewhat superior to those of his neighbors.

He listened attentively while she explained the circumstances.

"And now," she demanded, "what did he mean? What is a 'trollop'?"

"'Trollop,' madam," he replied gravely, "is a very difficult word to define. Its meaning is subtle and elusive. It's hard to put into words, but it's a rare compliment Old Man B—has paid you. In olden days 'trollop' was a synonymous term for 'Queen of Sheba,' but as near as we can come at its meaning nowadays the definition would be 'The Sheep Queen of Poison Creek.'"

"Is that so!" exclaimed the mollified widow. "I've wronged that man. I'll stop and ask him over for supper on my way back."—Caroline Lockhart, in Lippincott's.

Why He Came

In one of the most aristocratic suburbs of Philadelphia there is a woman who is becoming famous for the lavishness of her afternoon entertainments to her friends, but the tremendous amount of ceremony attaching to each function renders it so slow that few would accept the invitations if they could refuse without giving offense to the wealthy and influential hostess. At a recent gathering of this nature a young business man came in late, and, making his way to his hostess, greeted her and apologized for his lateness.

"I'm delighted to see you," was the cordial reply; "it's so good of you to come. But where is your brother?"

"Oh, he asked me to tell you how sorry he was that he could not come. You see, we are so busy now it's impossible for us to get away together, so we tossed up to see which of us should come."

"How nice! What a capital idea! And you won't?"

"No," said the young man absently, "I lost."—Philadelphia Record.

As Well as Could be Expected

"John's done right well up in the city, arter all."

"Do tell!"

"Yes; I've jst hearn that he's recovered from one appendicitis, two orter-mobles, one heart-failure, an' three business ones."—Atlanta Constitution.

Count Boni was another distressing case of overcapitalization.—Washington Star.

Chinese Reasoning

The Presbyterian minister in O— after much persuasion succeeded in getting two little Chinese boys to attend his Sunday school. The teacher told all the children as they left each Sunday not to forget their pennies for the next Sabbath. For several Sundays the little Chinese boys brought their pennies. Then one day when Miss S— passed the collection box Wing Loo looked up at her with, "What a mallah? God bloke all a time?"—Life.

Changed, Yet the Same

A Southern man, who has for some years past been established in New York, recently visited his former home in Virginia. Whilst there he was busy renewing old acquaintances. Among these was the son of an old preacher whom the former Virginian remembered as having invariably discoursed on the same topic.

"Heard father since you've been back?" asked the son.

"I am sorry to say I have not," said the other. "Tell me," he added, with a



A stern chase.



Get him now!



Boarding the prize.



Stalling home.

GOING SOME

smile, "is he preaching that same old sermon?"

"Oh, yes," replied the son, not at all taken aback by the question; "but for the last year or two he's been hollering in different parts of it."—Lippincott's.

More Than Likely

I often think of what I'd do
If I had lots of dough;
I dream of how my coin I'd strew
Among the poor I know.
But if I had much wealth, perhaps
Unto it I would cling,
Conduct myself like other chaps
And never do a thing.

—Courier-Journal.

Two Presidents

Mr. Cleveland once wrote a message on the tariff alone. Mr. Roosevelt wrote one on every other subject in the world except the tariff.—Waterbury American.

One on the Senator

Dr. Edward Everett Hale, chaplain of the senate, usually listens for an hour or so daily to debate, taking a sort of fatherly interest in the members, as the chaplain of a boys' school might. The story goes that Dr. Hale once asked a certain senator, with a good deal of solicitation, if he was a church member. The senator was glad to be able to say that he was. Two or three days later, according to the story, Dr. Hale recurred to the subject and asked the name of the church. The senator gave a name. Two or three days later Dr. Hale remarked with regret that he had looked up that church and that he was sorry to find that it had been burned down twelve years before—and never rebuilt.

Tried

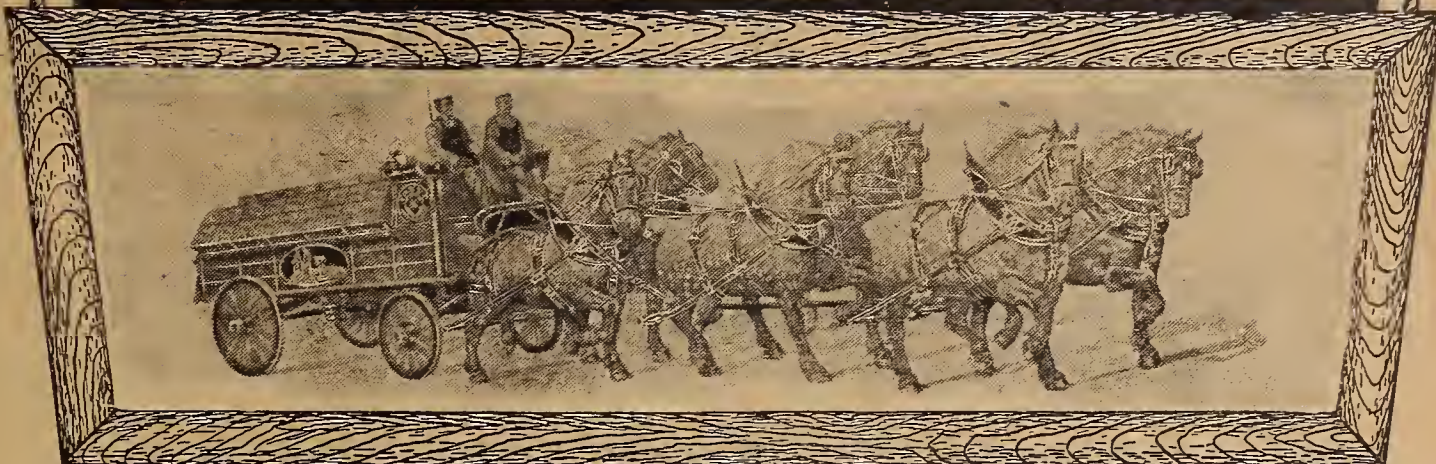
"I hope this time you've brought me matches that will light, my son."
"Yes, mother," said the little lad;
"I've tried them, every one."—Boston Transcript.

Retort in Kind

"No," remarked a determined lady to an indignant cabman who had received his legal fare, "you cannot cheat me, my man. I haven't ridden in cabs for the last twenty-five years for nothing."
"Haven't you, mum?" replied the cabman, bitterly, gathering up the reins.
"Well, you've done your best!"—Tit-Bits.

This Magnificent Colored Picture FREE

PRINTED IN EIGHT BEAUTIFUL COLORS FREE FROM ADVERTISING
SIZE 15 x 32 INCHES



CHAMPIONS OF THE WORLD

PABST FAMOUS SIX-HORSE TEAM OF PERCHERONS

Awarded 10 First Prizes World's Fair, St. Louis, 1904.
Awarded 6 First Prizes International Horse Show, Chicago, 1904.

THIS PICTURE IS HANDSOMELY MOUNTED AND READY TO FRAME. IT IS AN EXACT REPRODUCTION OF THIS FAMOUS TEAM IN ACTION AT LIVE STOCK FORUM WORLD'S FAIR, ST. LOUIS, WINNING THE WORLD'S CHAMPIONSHIP.

Wilbur's Stock Food Made This Team Famous

Read the following letter from James G. Boyd, Supt. Pabst Brewing Co's. Stables

WILBUR STOCK FOOD CO., Milwaukee, Wis. Oct. 17, 1904.
Gentlemen:—We desire to say a word in favor of Wilbur's Stock Food which we have fed to our horses with the very best results. We wish to say especially, that the horses we have sent into the prize ring this year, which have been Blue Ribbon winners everywhere, are fed on this food daily.

Yours truly,
JAMES G. BOYD, Supt. Pabst Brewing Co's. Stables.

HOW TO GET THE PICTURE FREE

Cut out the coupon, send it to us, and we will send the picture by return mail. Be sure and answer questions in coupon and write name and address plainly.

WILBUR STOCK FOOD CO., 120 HURON ST., MILWAUKEE, WIS.

CUT HERE

FREE PICTURE COUPON

Wilbur Stock Food Co., 120 Huron St., Milwaukee, Wis.
Please send me the picture absolutely FREE.

Name.....

P. O. State.....

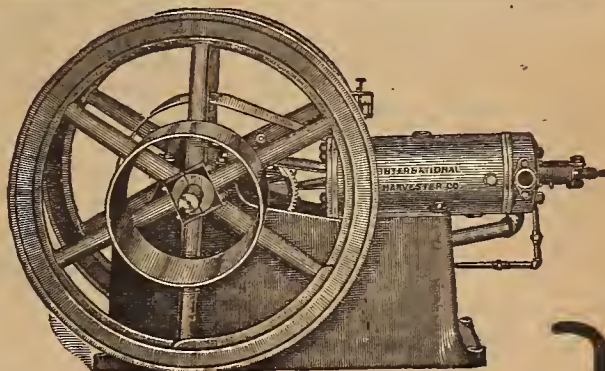
What live stock do you own? State number of each.

.....cattle.....hogs.....horses.....sheep.....poultry.

What stock food have you used?.....

CUT HERE

How do you Shred Fodder—Grind Feed—Pump Water—Saw Wood—Shell Corn?



Do you do it in the old slow hand-power way, or do you do it up in a hurry with a gasoline engine?

The easy way, the cheap way, the quick way, and the labor-saving way, to do these jobs and many others on the farm is with gasoline engine power.

It will cost you but 5c an hour to run an I. H. C. gasoline engine generating three horse power. The engine is always ready when you want it—right when you want it—you don't even need to light a fire to start it. Just close the switch, open the fuel valve and give the fly-wheel a turn by hand—that's all.

It's so easy to start and to run; it is so simple an operation that before you've had one a month you will be using it for all sorts of things.

A gasoline engine is almost indispensable on the modern, up-to-date farm, but be careful when you buy. Some gasoline engines are better than others, and it will pay you to do a little investigating.

* * *

Learn all about I. H. C. Engines.

—About their simple construction.

—About their strength and durability.

—How little fuel they use and

how they waste none.

—How easy it is to operate them.

—How much power they furnish.

I. H. C. gasoline engines are made in two styles and several sizes:—Vertical, 2 and 3 horse power. Horizontal (portable and stationary), 4, 6, 8, 10, 12, 15 and 20 horse power. Ordinary stove gasoline is used for fuel and there is no danger whatever.

* * *

Go to our local agent for a talk about power for the farm, or if this is not convenient, write for catalog.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.

(INCORPORATED.)

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Stoves and Ranges at Wholesale Prices

OUR OFFER

Order a Gold Coin Range or Stove. Use it a whole year. If at any time in that year the stove should prove unsatisfactory to you, you may return it. We will return all your money and pay freight both ways. There is no better stove made—for 50 years a standard make of highest grade. Freight paid, safe delivery guaranteed. Write for Illustrated Catalogue and wholesale prices.

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(Successor to Bussey & McLeod. Estab. 1860)

Old-Fashioned Flowers

Like those our grandmothers grew. Hardy Vines, Shrubs, Fruit and Ornamental Trees, Roses. Full line. Wholesale prices. Buy direct from grower. Write for handsome illustrated Catalog. It's free. Don't delay.

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The Marlin Model '92, .32 caliber, uses .32 short and long rim-fire, also .32 short and long center-fire cartridges all in one rifle. These cartridges are satisfactory in every way but much lower in price than other .32's. This Marlin is the only repeater made for these sizes. It is much more effective than a .22 caliber on such game as hawks, owls, foxes, woodchucks, squirrels, geese, etc. Described in detail in our complete 136-page catalogue, mailed free for six cents postage.

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141 Willow Street,

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HALF A MILLION HARDY TREES,

Peach Trees

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grown where scale and other diseases are unknown. Also 600,000 Apples, 2 & 3 yr. Pears, Plums, Cherries, Quince and Apricots. Small Fruits of every description. 50,000 California Privet. 50,000 Carolina Poplars 8 to 10 ft. 8c; 8 to 10 ft. 10c; 10 to 12 ft. 12c; 12 to 15 ft. 15c. Liberal discounts on early orders. Secure varieties now, pay in spring. Catalogue free to all.

Four Times Bigger

Than Last Year

Think of it, a pony and prize contest for FARM AND FIRESIDE readers that will be four times greater than last year's. Our contest last spring was the largest ever conducted by a farm paper up to that time, but this stupendous contest makes it sink into insignificance by comparison. Last year we gave away one pony and six grand prizes. *This year* we shall not only give away

Four Ponies and Twenty-five Grand Prizes

but thousands and thousands of valuable prizes—a prize for every contestant. This is one reason why this year's contest is four times bigger—in fact, the greatest pony contest in the history of the American press. FARM AND FIRESIDE announces absolutely that this great contest will start February 1, 1907.

DO YOU WANT THIS PONY TEAM?

It will be given absolutely free with this new wagon and double harness to some one who is willing to do a favor for FARM AND FIRESIDE in spare hours.

HOW would you like the magnificent pony team, wagon and harness that will go absolutely free of charge to the person sending us the largest number of subscriptions to FARM AND FIRESIDE before June 1, 1907? "Surprise" and "Beauty" are their names. They are the pride of the famous Arnett Pony Farm and are valued at \$400.00. You have no idea how proud you will be to own them, for they are magnificently bred, carefully broken both to drive and to ride, and perfectly matched.

"Surprise" and "Beauty" are dark bay geldings, with smooth shiny coats, and guaranteed absolutely sound subject to veterinary examination. They are three years old, 44 inches high and gentle as kittens, both of them. They should be fine ponies for twenty years to come. The boy or girl who wins "Surprise" and "Beauty" will be the luckiest boy or girl in the whole land—and the proudest, too. Think of harnessing them up and taking your friends for a drive around the neighborhood. Really actually owning these two matchless little ponies with this fine wagon will be the realization of all your dreams. Every one in your town will envy you, for there is nothing so pleasing as a pony team (especially when they are large enough to be very useful, without being large enough to eat as much—both of them taken together—as an ordinary sized horse). These



"Surprise" and "Beauty"—Matched Team of Shetlands from the George Arnett Pony Farm, the Oldest, Reliable Pony Farm in the United States

ponies are little fellows and easy to keep, but they are good workers and good goers just the same. Here is the chance of a lifetime for some enterprising boy or girl. "Surprise" and "Beauty" are among the handsomest pony teams in the United States, and will far surpass your expectations.

Miss Viva McNutt, of Vandergrift, Pa., winner of "Teddy," the first prize in last year's FARM AND FIRESIDE Contest, says: "Teddy is so well he weighs almost one hundred pounds more than when I got him. Every morning I go to the stable and ask him to shake hands, and he gives me his right foot. Then I ask him for a kiss, and he puts up his little soft nose and I give him a kiss. Not only I love him, but all the children in town like him. Last winter I missed almost half my school because I was sick, but this winter I missed only three days, because every nice day I hitch up Teddy and take my little sister for a drive. Now I am well. Teddy is gentle in every way and I really cannot tell you how much I do love him."

When we tell you that both "Surprise" and "Beauty" are more costly and better in every way than "Teddy," you will realize how much this team is going to mean to the winner. And don't forget that besides "Surprise" and "Beauty" two other ponies will be given as second and third prizes. There will be altogether

\$5,000.00 in Ponies, Prizes and Rewards

A \$750.00 Piano or a \$650.00 Automobile

may be substituted for the pony team if desired. And there are twenty-two other grand prizes in addition to the ponies. We call them grand prizes, because of all the prizes and rewards in this contest, these twenty-five are the best and most valuable. Think of it, four ponies, a piano, and grand prizes galore! Among the other prizes are a rubber-tired carriage, harnesses, a donkey, a goat, gold watches, a diamond ring, blooded dogs, guns and lots of others just as valuable. There are plenty of prizes for everybody—you are sure to get one, for it requires only a little of your spare time. We are going to arrange things so that if you

do not care for the grand prize you win, you can have something else just as valuable that you do want, **free of charge**. This is the most liberal, as well as the fairest and squarest prize contest ever conducted by a reliable company. There is no chance to lose, and the only question is: How large will your prize be? Never before has a paper dared to make such liberal offers. This is the greatest pony and prize contest ever conducted. We give you everything you could wish for in prizes—**value, quantity, choice**—and what is most important of all,

We Guarantee Every Contestant a Valuable Prize

How to Get the Ponies

2-1 Get ten subscriptions to FARM AND FIRESIDE at 25 cents each, keep 50 cents for your trouble and send us the ten subscriptions with \$2.00. Upon receipt of these we will enter you as a contestant, enroll you for a prize, and send by return mail full particulars as to how the ponies and other prizes will be given away. Do not delay, for there is a lot to find out about these ponies and grand prizes yet. First of all, cut out this coupon (or use a postal card) and mail it with your name and address—**now**, so that we can save a place for you. In the meantime get the ten subscriptions quickly before some one else gets ahead of you, and send them right along to FARM AND FIRESIDE without waiting to hear from us. We will see that you get credit for them and will keep a place in the contest for you, if you do not delay.

Name.....

Post-office.....

Dated.....1907

Our Great Proposition

Yes, we are going to give every person who becomes a contestant an equal share of \$3,000.00 in prizes and rewards. It makes no difference how many or how few subscriptions you send us, because this is all in **addition** to the twenty-five Grand Prizes. To know how we are going to do all this, hurry up and get ten subscriptions to FARM AND FIRESIDE so you can be a contestant. We will pay you liberally for taking these subscriptions, will put your name right down for a valuable prize, and will give you all the details and tell you just how to get the ponies. We are making these wonderful offers because we know they will increase the circulation of FARM AND FIRESIDE immensely. **Every contestant** not only gets paid in cash for each subscription, but will receive, in addition, an equal share in the prize distribution—besides the ponies and Grand Prizes. Think for a moment of these great offers—and all for using a little of your spare time. It is easy to obtain ten subscriptions to FARM AND FIRESIDE at 25 cents each—and remember, that makes you a prize-winner **sure**, if you do not do another thing. People are just waiting to subscribe for such a helpful paper. We want every FARM AND FIRESIDE family represented in this Contest. See to it that your family has a contestant. Act immediately! Delays are dangerous!

FARM AND FIRESIDE, Springfield, Ohio

NOTE: No member of a family connected in any way with FARM AND FIRESIDE or THE CROWELL PUBLISHING COMPANY will be allowed to enter this contest.

LAST YEAR'S PONY WINNER MADISON SQUARE PATTERNS

Tells Farm and Fireside Readers How Easy It Was to Get the Pony

The picture below shows Miss Viva McNutt, of Vandergrift, Pa., and the handsome outfit consisting of "Teddy," the carriage and harness, which she received absolutely free.



This Picture of Miss Viva McNutt and "Teddy" was taken just before Christmas as a Present for some Friends

Don't you think "Teddy" is a little gem? He is really a very handsome pony, but not half so pretty as either "Surprise" or "Beauty," the ponies that will be given away absolutely free to the boy or girl that wins first prize in the Farm and Fireside Contest that starts February 1st.

How Miss McNutt Succeeded

In a recent letter to Farm and Fireside, concerning last year's contest, Miss McNutt said:

"It was no trouble at all to get subscribers. Every one I asked would say, 'Let me see your paper,' and when I told them it was only twenty-five cents a year, they said it was certainly worth a quarter and they would take two if it was needed, so I could get 'Teddy.' Nearly every one in Vandergrift subscribed. They seemed to be glad that I took such an interest in the contest, and they all helped me, so now I want to help lots of boys and girls to win the prize this year. It is not hard—they would not refuse me when they saw I was in earnest. Don't give up! Some days I didn't get very many, but the next day I would get enough for two days. This is the way I did. I was bound to have 'Teddy,' and I got him, and I will not give him up unless he dies. Oh, I cannot say enough for him and for your paper. If it had not been for Farm and Fireside I would not have him."

After reading what Miss McNutt says about "Teddy,"

How Would You Like to Have Two Such Ponies

instead of one—a beautiful, lively pony team with cart and harness? It is just what you have always wanted, isn't it—just what every boy and girl in America wants? Well, you can have the prettiest pony team you ever saw in your life, free of charge, if you will read what we say on the opposite page, and take our advice. All that is necessary now is to send Farm and Fireside your name and address, saying that you want the pony team. Do it to-day.

All Necessary Descriptions and Directions Sent with Each Pattern

TEN CENTS EACH



No. 772—Waistcoat Shirt-Waist
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.



No. 868—Paquin Vest Waist
Sizes 32, 34 and 36 inch bust measures. 10 cents.

We want all of our Farm and Fireside readers to try making their clothes with the aid of the Madison Square Patterns. Thousands have already done so and are pleased with the results.



No. 721—Square Yoke Nightgown
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.



No. 866—Bertha Waist with Sleeves in Two Styles
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.

SEND FOR OUR FREE CATALOGUE.



No. 804—Plain Wrapper with Fitted Back
Sizes 34, 36, 38, 40 and 42 inch bust measures. 10 cents.



No. 451—Combination Waist and Drawers
Sizes 1, 2 and 4 years. 10 cents.



No. 805—Princess Dress with Panel Front
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.

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THE CROWELL PUBLISHING COMPANY,
11 EAST 24th STREET, NEW YORK CITY.
WRITE YOUR NAME AND ADDRESS PLAINLY.

Making the Home Cheerful

How to Provide Amusement for Old and Young

Fun and Entertainment for All

The editor of this magazine has frequently urged his readers to do all they can towards making the home as cheerful as possible for all the family.

Now I want to tell you how you can cheer and brighten your home in a simply wonderful way.

Read what Thomas A. Edison the world's greatest inventor "the wizard of the 20th Century" has said:

"I want to see a phonograph in every American home."

If you have never had a genuine phonograph in your home you cannot imagine what a wonderful pleasure it will be to you.

"What pieces can I hear on a phonograph?" some may ask.

Well, you can hear almost anything. There are 1500 genuine Edison gold moulded records and you can have your choice of these.

Suppose you get some vaudeville records reproducing to absolute perfection the greatest comic artists. Then take some band music, Sousa's Marches, Waltzes by Strauss, soul stirring lively music; then grand opera concert pieces as well as the finest vocal solos; also comic songs, ragtime, dialogs, comic recitations, piano, organ, violin, banjo and other instrumental music; all kinds of sacred music, duets, quartettes, full choruses.

The Edison records are perfect—absolutely natural—and unlike the inferior though higher priced records of others the Edison records never become rasping and scratchy.



Fun For Everybody.

The most rollicking minstrel music in the world. Comic songs and recitations that set everybody in a roar, putting all in the merriest humor, and casting out every care and every worry. Don't you want your home to ring with the merry laughter of old and young? Don't you want your friends to hear the very latest things that have brought pleasure to the great world? Surely you do. The Edison Phonograph plays and sings them for you quite as well as could the great artists if they were right in your own home.

This wonderful instrument, I think, is far, far better than a piano or organ, though costing only one-fourth or one-eighth as much; for it gives you endless variety, it always plays perfectly and anybody can play it.

With an Edison phonograph in your home you can arrange a concert at any time with just such a programme as brings \$1 and \$2 a seat in the opera houses of a big city.

Or if you like dancing you can arrange a dance in your home or in any hall; for the Edison phonograph is loud enough.

Furthermore with the Edison phonograph you can make your own records reproducing to perfection your own voices and the voices of your friends and children. These records you can keep for years and years having the voices of the absent ones always with you.

Yes, indeed the Edison phonograph is "the king of entertainers for the home."

Don't Bother with Writing a Letter. Simply sign

coupon, put in envelope and mail to-day.

Coupon

Frederick Babson
Mgr. Edison Phonograph Dists.
149-150 Michigan Ave.
Suite 3182 Chicago, Ill.

Without any obligations to me please send me your complete Catalog of Edison Gen. Edison Standard, Edison Home and Edison Triumph Phonographs, free circulars of New Special Edison Outfits and complete Catalog of Edison gold-moulded records, all free, prepaid.

Name _____

Address _____

Mr. Edison Says:

"I want to see a Phonograph in every American home."

The Phonograph is Mr. Edison's pet and hobby. Though he has invented hundreds of other wonderful patents he has retained his interest only in the Phonograph Company, of which he owns practically every share of stock. Mr. Edison knows of the wonderful pleasure his instrument has provided and is providing in thousands of homes.

The New Style (1907 model)

Genuine Edison Outfits—

at one-fourth the price of inferior imitations!

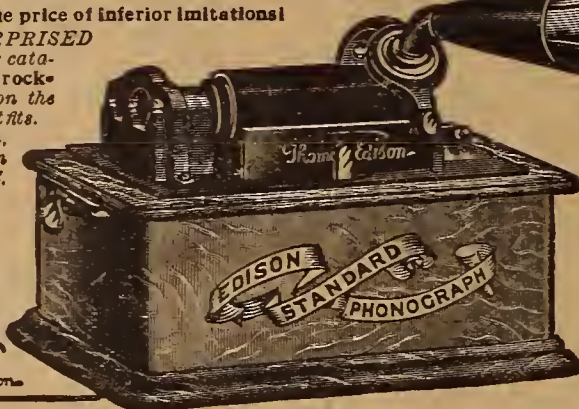
You will be **SURPRISED**

when you see our catalog quoting the rock-bottom prices on the finest Edison outfits.

Sign the coupon, and get the Edison catalogs **FREE**.

Here is Mr. Edison's signature which you will find on every genuine Edison Phonograph. Look for this trade-mark:

Thomas A. Edison



Here is a special machine with our beautiful new Flower Horn, horn being more than 2 ft. long and over 1 1/2 ft. in diameter. A splendid horn!

FREE TRIAL

Read every word of this straightforward offer.

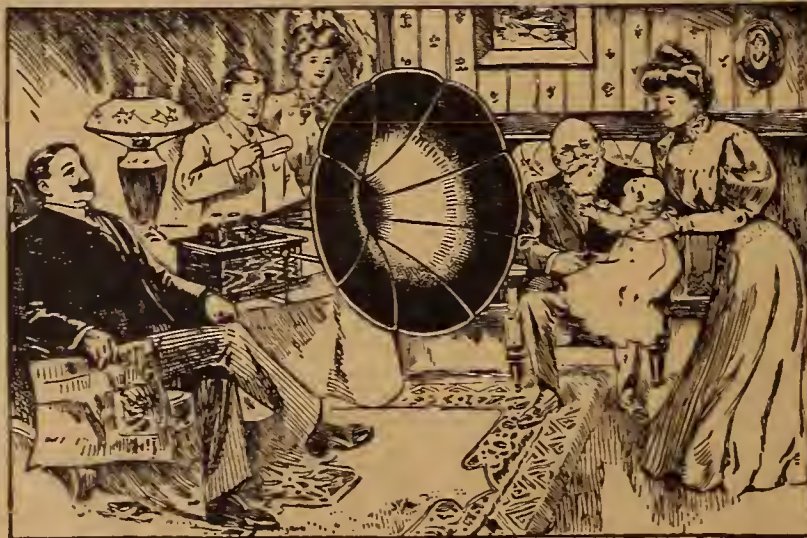
While this Offer lasts every responsible, reliable person can get on free trial a genuine Edison Phonograph Outfit, including 12 Edison genuine gold-moulded records, direct from us to your home: *positively not a cent in advance*—no deposit—no bother with C. O. D.—no formality of any kind. We allow 48 hours' free trial at your home; and in rural districts up to a week if necessary for convenience of patrons.

Try the instrument at your home, play the stirring waltzes, the two-steps, concert pieces, minstrel dialogs, old-fashioned hymns and other religious music, beautiful vocal solos, operatic airs and other beautiful Edison gold-moulded records. Play all these and if then you do not care to keep this wonderful Edison outfit, send the instrument back at our expense—and we will charge you absolutely nothing for the trial.

We make this remarkably liberal offer to all responsible, reliable parties because we know that after trial hardly anybody ever returns an Edison outfit. When trying it you will see at once the vast superiority of the genuine Edison, particularly our new special Edison outfits, over ordinary talking machines; you and your family and everybody that calls at your house will be more than pleased—constantly amused and entertained and you would not part with the instrument if it cost twice or three times what we ask. Read what the Editor of this paper says on Page 2.

Music for Your Home!

Entertainment for the old and the young! No end of pleasure for all the family! An Edison Phonograph means endless variety; it is far better than a piano or an organ, and everybody can play it perfectly. You cannot imagine how much pleasure you will get from an Edison Phonograph until you have tried the instrument in your home.



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AN ILLUSTRATED FARM AND FAMILY JOURNAL

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American Plant and Animal Breeders in Council

THE American Breeders' Association, the guest of the Ohio State Board of Agriculture, and the State University, in conjunction with various agricultural and horticultural organizations of the state, has just held a most interesting and significant series of meetings in Columbus, Ohio. Not less than fifteen distinct national and state conventions were in session during the week, and each one had an unusually successful meeting. The State Horticultural Society, the State Forestry Society, the Ohio Farmers' Institute, the Ohio Students' Union, not to mention various stock-breeding associations and clubs, were all well attended, while the addresses, discussions and exhibits were of signal educational value.

About one thousand were in attendance from outside the city, representatives being present from Vermont to Louisiana, and from New York to Washington. Including the officers and students of the university, not less than fifteen hundred different persons improved the opportunity to attend the meetings.

While there were many side issues, the dominating feature of the joint meetings was the improvement of field, orchard and garden crops, together with all classes of domestic animals. It was clearly shown and emphasized that the individual plant and animal is the result of two general forces: namely, "environment," which includes care and general management, climate, soil, fertilizers, cultivation, etc., and "heredity," which includes the line of descent, parents, grandparents, etc.

Of these two forces, the purely scientific man is mainly interested in the latter, and his efforts are now directed toward the discovery and application of the laws of inheritance. The intelligent practical man is interested in environment as well as heredity. He knows that the increased yield of his crops or the profit from his domestic animals is mainly dependent upon care and good surroundings.

By improving the environment, even though this is only accomplished by more or less expense, he increases his profits.

But the importance of heredity is beginning to be understood as never before. It is a silent force that man can put in operation, that acts without expense. The possibilities of scientific plant and animal breeding cannot be estimated and can scarcely be overrated. If a variety of corn can be originated or selected that will produce through the force of inheritance one kernel more on each ear than at present, such a variety would be capable of increasing the corn crop of the United States not less than six million bushels.

If one should breed a new potato that would produce one more tuber to each hill it would increase the total yield of the potatoes of the United States by twenty million bushels. A variety

of wheat that will give one kernel more to each head would increase the total yield of wheat in this country by fifteen million bushels.

This is the significance of improved breeds, and the object of the American Breeders' Association is to study the laws of breeding, so as to promote the improvement of plants and animals by developing and improving the methods of breeding.

An improved environment—that is, good care and management—will help all plants and animals to yield better results for the time, but by improved breeding, plants and animals may be brought into existence, which with the same environment will give better results in all places and for all time.

Another point that was clearly brought out in the meetings of the Breeders' Association is that the fundamental principles of breeding are the same whether applied to plants or animals. The methods of application vary, but the laws of inheritance so far as known apply alike to all forms of plant and animal life.

The progress made in plant and animal breeding respectively is not always equal or in the same direction. Some differences in plant and animal breeding may be roughly stated as follows:

(1) The sexuality of plants was not known until comparatively recent times. The sexes of animals have been known, and they have been more or less systematically bred for thousands of years.

(2) Plant breeding is more difficult of control. The pollen of plants is not easily confined, while the breeding male of animals can be confined in stable or yard.

With corn, which is wind-fertilized, we have no knowledge of the individual plant from which the pollen came, and as a result we know nothing of the special characteristics of the sire.

With wheat, that is self-fertilized, no two specific individuals of either the same or different varieties can be mated without artificial means.

(3) In plant breeding the selection is made from seeds, which are embryos or undeveloped plants, and not, as in animals, fully formed individuals.

A seed is analogous to an egg, and the characteristics of a fully developed chicken cannot be definitely foretold by looking at the egg. We must plant the seed, grow the plant and observe it through all the stages of its life until fruit and seed are again produced, before all its desired characters are known. In the case of animals, the poorer ones are easily rejected, the desirable ones alone being mated.

Of the various steps or means used in the improvement of plants, selection is the most important. It is the surest, the most direct and the most economical method of improving plants. The unit of selection should be the whole individual plant.

For example, we should not select merely the best tomato seed, nor yet seed from the best single tomato, but from the best tomato plant. So with wheat, the unit for selection is not the seed, not even the head of wheat alone, however near the ideal it may be, but it is the stool or the whole product from a single seed that must be considered. With the potato it is the single hill, and not the single potato. The breeder of plants has one distinct and signal advantage over the breeder of animals, in that it is usually practicable to work with a large number of individuals.

In breeding animals only a small per cent of the inferior can be discarded. In plant breeding only a small per cent of the best need be saved.

WILLIAM R. LAZENBY.

Ohio State University.

The "Corn Belt" Farmer

From farm journals, from the small farmer himself and from my own observation I know that many Eastern people have little or no knowledge of the life of a farmer in the "corn belt," as we term the land best adapted to the production of corn. The farms are usually from one hundred to four hundred acres; perhaps two hundred acres is near the average. There are a few farms of eighty acres, and also a few of five hundred or six hundred.

The proprietor of a farm of two hundred acres will need to engage a man to assist him for nine months. Some hire by the year to make sure of help the next year. About the middle of March, if the frost is out of the ground, the pasture fences need looking after a little, and as soon as the land can be worked, out comes the disk. Some use a similar machine called a cutaway or spader. Four horses walking abreast are hitched to this machine, which has a tongue and a seat for the driver. Out into the stalk field they go, and the ground is cut up to get a bed for the oats. After about twenty acres have been treated in this manner, the other man—the farmer—hitches two horses on a twenty-foot seeder, and commences to sow oats. Even if some places are a little wet and muddy he does not stop, for every day that one can work in the field must be utilized now. As soon as he drives around once—that is, out to the end of the field and back—the disk starts behind him. As soon as the oats are sown he will get out the sixteen or eighteen foot harrow, hitch four horses to that, and commence to harrow.

After the oats are harrowed, he will go over his stalk ground with a disk, to cut up the stalks and to stir the top of his land, so it will not bake or be lumpy. If the stalks are too heavy, he will rake

and burn them, but I know that it is better to plow them under. Then he will put four horses to a gang plow. Sometimes he will run two gang plows and turn over eight or nine acres each day. As soon as plowed, one four-horse team will take a harrow or disk and smooth down the soil. The corn planter is then started. Sometimes three horses are hitched to the planter, and eighteen or twenty acres a day planted.

As soon as the planting is done, the whole is harrowed once more. Sometimes a cultivator is used following the planter, before the corn is up; this is called "blind cultivation." The harrow follows that. Now there may be three or four days before the first planting will be large enough to cultivate, and some garden seeds may be planted and some odd jobs done.

As soon as the rows of corn can be seen nicely, the cultivators are started, and until July 4th there is not much time for anything else. Riding cultivators are used, and when the corn is [CONCLUDED ON PAGE 7]



SCENE ON AN ILLINOIS FARM

FARM AND FIRESIDE

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The above rate includes the payment of postage by us. All subscriptions commence with the issue on press when the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post Office Money Orders, Bank Checks or Drafts. When none of these can be procured, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. Do not send checks on banks in small towns.

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelope and get lost.

Postage Stamps will be received in payment for subscriptions in sums less than one dollar if for every 25 cents in stamps you add a one-cent stamp extra, as we must sell postage stamps at a loss.

When money is received, the date will be changed within four weeks, so that the label will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this a great deal of trouble will be avoided. Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on the label, to your letter of renewal.

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Always give your post office at the beginning of your letter.

Will Interest You

THE MARCH 10th ISSUE

will be made up in its usual attractive style, and will not be lacking in any of the valuable departments and features that have made FARM AND FIRESIDE the great twice-a-month journal that it is.

Down the Mississippi

in picture and story will prove a delightful treat. The author has prepared it with the entertainment and instruction of our readers solely in mind. The article deals strictly with the lives of the farmer, rivermen and general laboring man, on and along the "Great Father of Waters," and to read it will seemingly make a person take the trip.

Faithful Bearers of Burden

What the little Rocky Mountain burro lacks in beauty he more than makes up in general utility. A page of pictures and story will surely please you.

The "Big" Men of Our Country

New and interesting history is being made every day, but the great deeds of men worth while in American history seem to never lose interest in the retelling. These sketches will not only prove entertaining reading, but will contain information with which every member of the farm and household should be familiar.

The Woman in the Home

is one of the best friends we have, and it is our intention to never slight those departments intended more especially for her. How to cook and what to cook, how to sew and what to sew, how to live and let live, are subjects that will continue to make FARM AND FIRESIDE indispensable to every farm household.

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If it is not, we want to know about it; and if it is not reaching you at all, it is altogether likely that

Your Subscription Has Expired

Now, we need not tell you that FARM AND FIRESIDE is giving its readers more than any similar paper in the world, quality and price considered. We believe you know that, but

What We Want You to Do

is to pay up your subscription if it has expired, and if you like the paper well enough, tell your friends about it. If the paper pleases you it will no doubt do as much for your friends and

They Will Thank You for Calling Their Attention to It

We do not want a single one of our readers to miss the rare opportunity to enter

The Great Pony Prize Contest

announcement of which is made on page 32 of this issue. This is one of the greatest prize offers ever made by any farm and family paper. If you do not care to enter the contest yourself, nor any in your household, then

Please Tell Your Neighbors About It

About Advertisements

FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment.

Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

CHANGE OF PUBLICATION DATES

Beginning with March, the publication dates of FARM AND FIRESIDE will in future be the 10th and 25th of each month instead of the 1st and 15th as heretofore. The issue following this one will, therefore, be dated March 10th, and will reach you promptly on that day. Please bear this in mind when March 1st comes, as the first issue for March will not reach you until the 10th of the month.

This change of publication dates will in no way affect the number of issues you receive on your yearly subscription. You will receive twenty-four numbers, two each month, for a year's subscription as heretofore.

Drop not your money into the maw of the mine shark.

A three years' subscription to FARM AND FIRESIDE is a good, safe investment.

Gone—Grosvenor, Wadsworth and Dryden. Others are to follow.

The political slogan of this paper is: Down with the man who misrepresents the farmer.

Suppose you subscribe now instead of next summer. You will be glad then not to be bothered. So will we.

We think we make more money in the end by keeping fraudulent advertising out of the paper. We know you do.

If you are not getting your paper regularly, and your subscription is paid up, let us know about it. We want to give every one a square deal.

FARM AND FIRESIDE has to its credit nearly thirty years of consistent effort to help the farmer. That's a better record to look back upon than falls to the lot of many of the so-called statesmen you are paying to represent you.

Don't buy stocks without the advice of honest men who really know all about them. Abnormally large interest is not the only interesting feature of an investment. Look out that your principal doesn't become abnormally small by the time you want to get it out.

Advertisers tell us that they are receiving more orders from FARM AND FIRESIDE readers than ever before. That shows that our people are prosperous, and that they appreciate having a paper to which they can always turn for a directory of honest merchants.

There is nothing in this world so comforting as the confidence of friends. FARM AND FIRESIDE has been profoundly impressed with this fact during the heavy subscription months. We thank you.

Isn't it strange that the farmer and the consumer, the man who furnishes the world's food and the man who eats it, are both in favor of pure-food laws? If they are for them, why should middlemen be against them?

Senator Dryden, Farewell

John F. Dryden has been defeated for re-election as United States Senator from New Jersey. The fight against him was an anti-corporation fight. The victory is a notable result of the awakening of the country to the evils of money in politics and the grasping greed of public-service corporations.

In his one-term period of service in the Senate, Mr. Dryden's few conspicuous activities were all for selfish "vested interests" and against the welfare of the country.

Agriculture, particularly, will be benefited by his deserved defeat.

Oleo greased his retirement toboggan. Thanks to the public-spirited members of the New Jersey legislature. You have done good service for the whole country as well as for your own state.

Our Great Subscription Offer

Last issue there was announced for the first time a distribution of ponies, pianos, automobiles and other gifts of great

value among the children and older folks of the FARM AND FIRESIDE family. All that we ask in return is that you or some one in your family should introduce FARM AND FIRESIDE to your neighbors, obtain their subscriptions, and in that way help us on toward the "million" which we always have in mind.

It is the work of the editors to give you the very best farm and family paper they can, not to look after the subscription list. Our business department is quite capable of doing that, as is shown by the liberality of the offers in the way of commissions, prizes and rewards. But to this particular subscription offer we personally call your special attention. We know that the ponies that will in due time gladden the heart of some of our bright little boys and girls are worth the most ambitious effort of every FARM AND FIRESIDE boy and girl.

A word to the mothers and fathers: You have been asked to subscribe, to renew promptly—and you have done so abundantly. You have shown that you believe in FARM AND FIRESIDE. Now, did it ever occur to you that if each one of you obtained the subscription of just one neighbor, it would double the size of our family—we would have near the "million"? But you are busy, you say. Are your children too busy? Wouldn't it do them good to know what it is to earn a little money for themselves? Wouldn't it stimulate their ambition to try for such a grand prize as a pony or a piano? This great offer, which you will find described on page 32, gives them just this chance to help FARM AND FIRESIDE, to help themselves by earning a little money to put in the bank, to increase their self-reliance and to learn the value of money.

There are two things to remember: The biggest prizes are within the reach of your boy or girl, because a thirteen-year-old little girl living in a country town won the first prize last year. Second, even if your little lad, or lassie, does not get the first prize, he, or she, will be well rewarded, because there is a valuable prize for each and every contestant.

We urge every FARM AND FIRESIDE family to be represented in this great contest, for your own sake, for your children's sake and for the sake of FARM AND FIRESIDE. The contest is just beginning. Now is your chance.

Mine Shares

A member of our FARM AND FIRESIDE family, Mr. A. S. Rishards, asks for advice about certain firms, or "fiscal agents," that are selling stock in mining companies. He says, "Are all or any of these companies reliable, and are the mines they finance, or represent, paying investments; or would a man simply lose his money by investing in them?"

Although we have no personal knowledge of the particular concerns named, we do know that the great majority of the mining companies now advertising shares for sale are absolutely unreliable and that a man would "simply lose his money by investing in them."

An acquaintance, a man of speculative proclivities, who has been buying five and ten cent shares in various gold and silver mines for a number of years past, as a side venture in the hope of making a rich strike some day, has accumulated over one hundred thousand dollars par value in beautifully printed stock certificates that are not now, never have been, nor ever will be, worth one red cent. His experience has been duplicated many thousands of times. It is the inevitable outcome of trying to play a game against the professional throwers of loaded dice.

There are a few legitimate mining enterprises working mines of gold, zinc, copper or cobalt that are marvelously productive and immensely profitable to their owners. Wonderful stories about them may be true. This is one cause of the success of fake mine concerns in unloading immense quantities of worthless stock on the general public. By artful advertising and bold, clever lying, fake mine promoters have produced a veritable craze for mine shares.

Special representatives of some of our leading periodicals who have recently made a personal investigation of the Nevada gold and Canada cobalt mines report that not more than one out of every three hundred mine companies now advertising and selling shares can, or ever will, pay anything back to investors. Some have actual claims staked off—sage-brush desert and hot air—either near or far away from good mines. Of thousands of such "prospects," a very few in time may become producing mines, and dividend-payers if honestly managed. Investigators report that out of five hundred mining companies organized in 1906 less than fifty have even any actual prospects.

In brief, the great majority of the flamboyantly advertised mine companies are barefaced frauds. The only ones connected with them who have a chance to get rich quick are the swindling promo-

ters who are after "easy money" from all who have money to invest. Of the millions mined from the pockets of unwary investors only a small fraction is ever used in actual mining, or even in developing "promising prospects."

Between the uncertainty of an actual claim, or "prospect," ever becoming a dividend-paying mine and the positive certainty of the swindling promoter of fakes, the chance the ordinary investor has of getting any money back is not worth considering.

The principal cause of the present activity in promoting swindling schemes is the general prosperity of the country. This prosperity is founded on the bountiful crops that have been gathered regularly for several years past. People in general and farmers in particular have money to spend, and are spending it freely. Some of the promoters of fake mining companies and other get-rich-quick schemes are now making special efforts to separate the farmers and their hard-earned cash. They get lists of farmers' addresses and send them glowing advertising matter, and they employ active, glib-tongued agents to go out among farmers and work them.

It is therefore proper for us to sound a word of warning to our readers. If you invest in these schemes, you will "simply lose your money." Better destroy your money than give it to swindlers and encourage their nefarious trade. Better yet, invest your money in your local savings institutions, in new farm machinery, in farm improvements and in comforts and conveniences for your home. Money thus invested will be safe, return fair dividends and add to your happiness.

J. B. Barnett.

Congressional Seedsmen

THERE has been a great deal of fulminating by seedsmen and some others against the congressman's presents of free seeds to his constituents, and an especial scream went up last spring because Congress failed to turn the measure down; but I rather think the average congressman knows a few more things about this matter than he is given credit for.

It is well known that the average farmer is a patient and long-suffering sort of chap, and not given to sudden and high kicking. That he is submissive to the plucking of the cornucopias that feast and fatten on the results of his toil, and that he registers no screeching protest when he is skinned from Dan to Beersheba, but merely rolls up his sleeves and proceeds to put in another crop to refill his depleted exchequer. He does considerable thinking, but says little, hence he does not cut the quantity of ice he should.

His congressman knows him pretty well, and knows that a little bounty in the way of something he and his wife needs every spring is very acceptable; therefore, he proceeds to pull Uncle Sam's leg for said bounty and the necessary transportation to get it to him.

The rural constituent is very grateful for this atom of graft, because, excepting the annual cure-all almanac, it is about the only free thing that comes his way between two Christmases.

The seedsmen who sell seeds, and the farmer who farms with his pen and his mouth, are loud and fierce in their denunciation of the seed friendliness which exists between the congressman and his farmer friend, because it hacks off a corner of the former's trade and makes the latter mad because he does not send him something he can use.

This war on the congressional seedsmen will continue until he does something handsome for the professional seedsmen. I would suggest that he go to him and tell him that if he won't howl any more about the little congressional seed graft, he and his fellow congressmen will present him a nice little cheap parcels post, with special concessions in it to the seed trade. That would be the end of all kicking against the "free distribution of new and useful seeds and plants."

Generally the congressman is pretty well onto his job in the matter of tickling his constituents and muzzling those who howl at the means used in the tickling, but in this case he seems to be entirely at sea. He is off his box, and it is a sure conclusion that unless he does something in the line above suggested he is going to be out of a job. The farmer wants a parcels post, and if this congressman won't give it to him he will elect one who will, seeds or no seeds.

Fred Grundy

About Rural Affairs

Scale and Scale Remedies

AS PROFESSOR PARROT stated at the fruit growers' meeting at Penn Yan, New York, we have a number of fairly effective means of fighting and controlling the San Jose scale, among which we may choose the one or ones that will be most suitable for our particular needs, or the particular conditions in each individual case. Spray we must, every year, and with much more thoroughness than we have been in the habit of doing, if we wish to have any chance of keeping the scale in check after it has once obtained a foothold, however slight, in our orchard. It is a fact that less than one half of the orchards in New York State have ever been sprayed, and that half of these had never been sprayed with the required thoroughness. Spraying is a disagreeable job at best, and the average workman is anxious to hurry through it. The owner should prove that he is not afraid of it, go with his men, and if possible direct the nozzles himself. I have not the least doubt that the scale will put the larger portion of the old apple orchards in this state out of business, and that consequently the apple output will be greatly reduced in the near future. This will also mean better fruit and greater profits in the business for those who have learned to spray well and manage to keep the scale under control.

Foremost among the scale remedies stands the lime-sulphur wash. Every expert recommends it as the best means of fighting the scale in large orchards. But considerable equipment is needed to prepare it cheaply and conveniently. First you want a good volume of steam, whether this is the waste steam from a factory or steam generated for the purpose from any kind or size of steam boiler. Have a number of light barrels on a platform, so that the mixture can be drawn off easily into the tank or spray barrel. Mr. L. L. Morrell, who uses large quantities of this wash on his orchards and those of his neighbors, gave the following directions at Penn Yan: Put ten gallons of hot water into the barrel and apply steam near the bottom so as to bring the water to a boil. Then put in twenty pounds of best stone lime. Make a paste of fifteen pounds of sulphur flowers and water, and add this to the boiling mass. Then let the whole boil hard, and when the mixture shows a dark amber color fill the barrel with forty gallons of cold water, and apply it before it gets cold. If you should let it get cold so that the sulphur crystallizes (on the top), throw the whole away and make a new lot. Use a three or four ply hose, and work under eighty to one hundred pounds pressure. Spray with the wind on the dormant wood in early spring. To do thorough work I believe that the trees should again be sprayed when the wind has shifted to the opposite direction. Mr. Morrell claims that this lime-sulphur compound thus made is not corrosive, and that he is not afraid of getting it on his hands or face. It will be a wise precaution, however, for any one who is about to use it, to cover his hands, face and all exposed parts of the body with vaseline, wear goggles, and put rubber blankets over the horses, or rub them all over thoroughly with crude petroleum. Spray until every part and parcel of the tree is covered with the wash. Lime-sulphur is a good thing. It kills every scale it touches. It kills every other insect with which it comes in contact, whether it be pear psylla, bud worm, or any other. It is also an excellent fungicide, and probably the best yet found for peach-leaf curl. The materials for making it are not expensive if the necessary equipment is at hand. But to spray it on the trees is about the toughest and nastiest job that any one can get into. While a tough proposition, however, it is also a business proposition for the large orchardist. The alternative is: Root, hog, or die!

The next and another most important scale remedy is crude petroleum. I have thus far considered it the best, safest and most convenient spray material for people (and they are in the great majority) who have only small orchards or perhaps only a few trees, and wish to save them. Crude petroleum (a liquid of dark amber color and sirupy consistency) is easily applied by means of any ordinary spray pump and fine nozzle, and will kill any scale or other insect with which it comes in contact. The finer the nozzle and the more pressure, the less liquid will be required to cover the tree. We can do about as much good with one gallon of petroleum properly applied as with four or five gallons of lime-sulphur mixture. The latter is terribly hard on hose, nozzles and valves, as well as on the operator's skin or eyes, while petroleum

simply keeps the machinery well lubricated and the skin soft and healthy. The job is a little "smeary," that is all. Notwithstanding the reports of trees being killed by using clear petroleum on them, I have never yet heard of a single instance where the least injury to tree or leaf resulted from proper spraying with clear petroleum when the work was done late in spring or after the buds had already opened and the first leaves appeared. Petroleum has proved especially satisfactory for spraying pear trees. I have used it for a number of years, and shall use it again the coming spring. For old apple orchards, even where they are regularly sprayed with lime-sulphur wash, Professor Parrot now recommends the use of petroleum as an occasional change. The only objection that can be urged against the use of crude petroleum, aside from its associations with the Standard Oil Company, is its cost. Last spring I paid eleven cents a gallon. This brings the net cost (deducting the rebate of one dollar and ten cents on return of the empty barrel) to about nine cents a gallon. But a barrel goes quite a ways, being enough to thoroughly spray several hundred pear trees, and save a crop worth perhaps five hundred dollars. So the expense of the treatment is really a bagatelle compared with the returns. Five or six neighbors in the suburbs, each having a dozen or two of trees in the yard or garden, can join and purchase a barrel and apply it, or hire somebody to apply it, and thus save their trees, which with their crops are an essential part of a happy, attractive and cheerful home.

A number of soluble oils are now being advertised as safe scale remedies. In some cases they have been found quite effective. They are just as easily applied as crude petroleum, and cost less. The manufacturers, however, are wrong, and hurt their own sales and interest, by advising the dilution of these oils, one gallon in twenty gallons of water. This makes the liquid too weak for doing the work promptly and effectively. Diluted one gallon to ten or twelve or possibly even fifteen gallons of water, it means sure death to every scale it touches. Some of these oils are so completely emulsified that they readily and completely mix with water, producing a milky fluid. It is recommended for use both in fall and spring on the dormant wood. I have not used these oils much, because in my first trial with one of them, several years ago, I got so much free oil in the solution that I was afraid of it. These oils are better now, and contain no free or unemulsified oil. They may be the coming scale remedy, and have already found favor and enthusiastic advocates among our larger orchardists.

Whale-oil soap and a combination of lime and kerosene are also effective, but on the whole less promising and less satisfactory remedies.

Climber for a Border Fence

A Wisconsin reader asks what kind of vine he might plant alongside of a boulder fence, on the east side. On west side is a pasture lot. The vine must be ornamental in flowers and leaves, and one that cows and horses will not eat.

Among a lot of shrub-like vines that could be used for such purpose may be mentioned the trumpet honeysuckle, the trumpet flower, which, although commonly found growing wild from Maryland southward, is perfectly hardy here, and possibly both the common and the Japanese hop. The common hop is not particularly ornamental, but quite useful to cover unsightly objects and of some practical value. Readers may be able to suggest other climbers.

Home Mixtures for Chicks

There are a whole lot of ready chick mixtures on the market. People often buy them thinking that they are scientifically compounded and are of particular value for their particular purposes. I have examined a number of them. They usually consist of a variety of whole and cracked grains and seeds, with the addition of particles of bone, coarse sand or other grit, oyster shell, etc. In some or most cases inferior grains have been utilized in making up the mixture, and the price of the mixture is high enough to leave a big margin of profit to the mixer. Mica, sand, oyster shell, etc., are heavy substances, and cheap. A liberal admixture of these important but cheap materials alone is sufficient to insure good profits in making the mixture even when the product is sold at fair grain prices. These profits are enormously increased, however, when inferior grains are made the basis of the mixture, and the latter sold at double, or more than double, the prices of good grains.

I prefer to make my own mixtures, and no difficulty is met with in this task. We do not have to stick to a particular formula or to particular proportions. The chicks prefer and thrive on a vari-

ety—and that is about all there is to it. It is not even necessary to have cracked grains, unless we desire to add corn to the mixture, which has to be cracked to make it available for small chicks. A chick a few days old quickly learns to eat whole wheat, and I have at times made whole wheat the main feed. But we can mix with it millet seeds, kafir corn, a little coarsely ground corn and oats, granulated bone, shells or other forms of grit. I find good wheat much better, and cheaper in the end, for chick feed than anything that on account of inferiority or inferior admixtures can be bought at an off price. It seldom pays to purchase wheat screenings consisting largely of cockle, weed seeds and shriveled wheat kernels. We can get the best food for chicks only by using perfect and wholesome grains, for which we can afford to pay full grain prices; but I dislike to pay double grain prices for grit, sand and shells, and find that my own home mixtures give me just as good results as do any of the store mixtures.

Carbide Waste

The "Country Gentleman," replying to the query of a reader about the fertilizing value of the calcium carbide waste (the refuse from an acetylene gas plant) says:

"Considered from the chemical standpoint, there is no reason why lime from calcium carbide should not be in first-class form to apply to clay soils. There may, however, be something noxious in connection with it, since the carbide itself is not a pure combination of lime and carbon. It is barely possible that some other combinations may have taken place in the formation of the carbide which leave something in the refuse from the acetylene machines which is harmful to plants. An experiment which can easily be made ought to precede the extensive use of the lime. Try some of it on any crop handy, and note the results before using large quantities in the field."

We have a large carbide factory almost within sight of where I write this. One of our street commissioners constructed a mile or so of village sidewalks from carbide refuse. When covered a few inches deep with fine cinders, it makes a serviceable sidewalk for the outlying districts. If not kept thus covered it becomes sticky and salvy in freezing and thawing weather. At first it was feared that the use of this stuff would kill the street trees, but they are flourishing. Where carbide refuse has been applied to soil in moderate quantities no harm has resulted, but further experiments are not recorded. Carbide, however, has proved to have some value as a repeller of insects on cucumber, melon and squash vines.

T. Greiner

Salient Farm Notes

Alfalfa, Cow Peas and Crimson Clover

QUITE a number of people have asked me numerous questions about alfalfa, cow peas, crimson clover and several other crops, most of them whether this or that would do well on their soil in their locality. Many times I find it next to impossible to answer these queries in a manner that will be satisfactory to the querists. Some years ago crimson clover was declared by several agricultural writers to be the one thing needed to keep up the fertility of the soil. Then the daily-paper farmers took it up and lauded it to the skies as the great cure all for sour soils, and a fertilizer without an equal in the vegetable kingdom. Many people remember these fulsome essays, and those who did not try this clover at that time are thinking of doing so now.

I gave crimson clover a thorough trial, and proved that it was of no value in my locality. A friend in Maryland gave it a trial at the same time, and reported to me that it was just the thing for his locality, and he has used it every season since that time—or did until he quit farming. I tried alfalfa on a small piece of well-drained land, and it did well for three years; then it was attacked by some sort of a blight, and made a very poor crop that year. I decided to turn it down the following spring, but when spring came it looked so well that I left it, and it made three good cuttings that year. I tried two varieties of cow peas, and both did well, making a growth that no mower could

cut or separate. They were a dense tangle of vine two feet in height, and if a person could have cut a swath a hundred feet long and six feet wide and separated it from the rest of the field, he could have hitched a horse to one end of it and dragged it to the barn like a rope. In some localities I understand they fasten a sharp upright knife to the outer end of the sickle bar "to cut the swath off the field," as one man termed it.

In this manner of growing crops that are new to a locality the right course to pursue is to test them on a small scale before planting any great quantity. One can soon find out for himself whether they will grow and are of any value to him. I believe that there would soon be thousands of acres of alfalfa grown where there is not now a plant if farmers generally would try it on a small scale, giving it a fair chance. It succeeds best on land that is naturally well drained, and there are thousands of acres of such land. Of course it does best on land that is naturally fertile; but it sends its roots far down into the ground, and if there is fertility in the subsoil it will reach it. A quarter acre does not require very much seed, and if the soil is well prepared, so that the crop has a fair show, a good stand is likely to result. If it does well one has a bonanza in the way of soiling crop, or a splendid hay crop.

A great many farmers, I find, are looking for some sort of a nitrogen-gathering crop that can be planted after a crop of wheat or oats is gathered, or be sown among the corn as it is laid by, and turned under the following spring for fertilizer. They want to grow a fertilizing crop between grain crops, so as not to lose the use of the land a year. I used to think this could be done until I tried it several times. In a favorable season cow peas can be sown immediately after a crop of winter wheat is harvested, and they will make a large growth to be turned under as fertilizer for a corn crop the following season. The land must be plowed shallow and well harrowed or thoroughly disked immediately after the wheat or oats is harvested, and the peas drilled in at once. If the soil is damp the peas will come up very quickly, and if showers are frequent enough to keep the soil a little damp they will grow rapidly, for that is the time of year when the sun is bright and hot, and that is just what they want. Managed in this way cow peas are oftener a success as a fertilizing crop to slip in between grain crops than any crop I know of, and they put the soil in splendid condition for a corn crop for the following season. I have planted quite a number of crops among growing corn, then cut the corn off as soon as fit, in an effort to get a green or fertilizing crop to turn under for the benefit of the corn the following year, but never succeeded with anything but rye, and that proved of very little value as a fertilizer.

Roup

Judging from the number of queries sent me, disease seems to be quite prevalent among poultry this season. Roup is the chief disorder complained of, and the principal question asked is: Does an attack of roup render the fowl unfit for breeding purposes? It depends on what sort of roup it is. Many people think a cold or slight attack of catarrh is roup. Such "roup" as that may put the bird out of business for a few days, but it does it no permanent harm. The roup that injures the fowl and renders it unfit for breeding purposes is the real thing. When its head swells and one or both eyes are closed and there is an offensive odor about it you have a case of real roup. It may be cured by some of the remedies recommended, but no matter how valuable it may be, it never should be used for breeding. I have seen people use such birds contrary to my advice, and thereby ruin their whole flock. The chicks hatched were not strong, and many of them died, and those that grew to fowls were constantly ailing in one way and another, and many of them developed roup on the slightest provocation. In every case of this kind the flock proved an unprofitable one to its owner. Not until every bird was gotten rid of were the pens entirely clear of roup. When a bird develops a bad case the thing to do is to destroy it and bury it where nothing can dig it up. This is much easier than to doctor it, and much more profitable in the end. The poultry raiser should keep close watch of his fowls all the time and promptly remove every suspicious case to a large box to be kept for sick fowls. One can tell in a very few days whether to turn it loose or destroy it.

Fred Grundy

Use of the Plain Phosphates

THE undecomposed mineral phosphates, or the ground phosphatic materials on the market under the name of ground rock phosphates, floats, etc., are known to our New England trade as plain phosphates. Their value has recently been reviewed in your paper by that competent authority, Professor Hopkins, who is certainly doing the farm interests a great service in inviting attention to them. Some of these phosphates contain thirty to thirty-two per cent of actual phosphoric acid, and are in the market at two dollars a ton less than the acid or soluble phosphates containing but fourteen per cent phosphoric acid. The soluble phosphoric acid then costs one hundred and fifty per cent more than insoluble. When I began the use of chemical fertilizers on my farm about 1875, since which time I have continued their use, mixing them by formulas wrought out of the farm by farm trials, chemists attached no farm value to the insoluble phosphates, and the trade then and now discouraged their use. Since 1881 plain phosphates have been in continuous use on my farm in an experimental way, and now enter into my regular fertilization for all farm crops, and yearly in increasing amounts. It will be seen that during all these years while chemists and scientific men have been discussing their use, I have been using them, indeed before they had seriously been considered as a source of available plant food.

I find that their value varies with the crops. A series of plots given over to crop rotation of eight years was the past season in oat hay. Plot 4, given acid phosphate, gave a yield of 6,538 pounds of air-dry oats and peas, and Plot 5 gave 6,868 pounds for the use of plain phosphate. But I write mainly to say that Professor Hopkins lays too much stress on the necessity of the presence of humus in large quantities. My farm is a typical upland or hill New England granite soil. These farms are not rich in organic matter. They are far from being such soils as I saw at the Illinois State College farm, where Professor Hopkins is investigating, to say nothing of the famous black soils of his state. Nor do I find the value of these phosphates confined to soils that have been recently manured. I am aware that the bacteria that aid in forming the acids in the soil that have to do with the solubility and availability of plain phosphates are not so active in soils low in organic matter, yet some of our upland or hill farms are at least slightly acid to acid, and on these the plain phosphates, as related, are working well. On freshly-turned or on limestone soils or soils that are alkaline it might be, and probably would be, different. Sandy soils low in humus have a problem of their own. Less decomposition might occur, yet less loss from leaching would follow on such soils. It appears that the plain phosphates that I have been fortunate to buy have contained, as shown by analyses, considerable available phosphoric acid. From my experience with these phosphates I am of the opinion that while their value will vary with the farms on which they may be used, and on the immediate use made of fresh yard manure in connection with them, yet on all farms they will be found to a considerable degree available and on most soils not already rich in phosphoric acid, and there are few such soils of economic value. On acid soils they should be generally used. By adopting his suggestions for their use, no acid phosphate need be bought, thus making a great saving.—J. W. Sanborn in the Rural New-Yorker.

The Bonny Blacks for Beef

Let us return to the Angus cow, the foundation of our industry. Among the qualities that make her the ideal range animal we find, first, her short, furry hide, that seems to defy all kinds of weather, wet or dry, hot or cold, and protects her from the flies. Then, her ambition to be up and doing, always on the lookout for a dainty bit of grass. The storm has no fears for her and the feeder's first call brings her on the trot. Spring time comes, and with it the calf crop, but the Angus man loses mighty little sleep over that. All he wants to provide for her is a dry shed or sheltered spot, for these little imps of blackness come into the world like rubber balls—hit the ground and up they jump, connect themselves to central and become chief operators. But such little calves. I may add, such godsend! A twenty dollar gold piece is smaller than a silver dollar, and these small calves comfort the hearts of the heifer mother and the stockman in about the same proportion, for they mean no sitting up nights, no dead heifers to skin, no orphans to splice. Surely these are points that will appeal to the stockman and farmer, as they must all be recorded in the profit column. These statements are founded on an

Review of the Farm Press

Angus experience of over twenty years, originally a strong advocate of the "red, white and roans," but when we saw the first calves sired by the first Angus bulls that were imported to America, watched them grow up with our calves in the same pastures, under the same conditions, winter and summer, we did not have to be told that we were in the wrong boat. We purchased two imported heifers and a bull, and the result is we have sold about thirty thousand dollars worth of bulls and to-day have about three hundred head on hand as the increase of the herd, besides the improvement in our grade cattle. The purchase was a most fortunate one for us, and I believe for the beef cattle interests of Kansas, and if I had an Angus "horn" I would blow it loud and long and request the other beef breeds to produce a record to compare with this. It may be of further interest to look up the records of the Royal and International shows, where we will find that a large majority of the winners in the range classes have carried the blood of these two heifers.—C. E. Sutton in the Twentieth Century Farmer.

Modern Methods of Sheep Growing

LAMB REARING

There is no longer any excuse for following ranch methods on Eastern farms. The land is too high priced and the conditions are too much against us to make that pay. The ranges must generally lamb late, upon fresh grass, in late May or in June. Their lambs must range afar, and while they grow healthy and happy enough, they will not come into market in competition with rightly reared farm lambs.

This is how we have made the most money with sheep on Woodland Farm. The ewes have been selected for their milking properties and have been bred early to good mutton rams of the short-legged, early maturing type. They have had the run of the pasture all winter and a good warm shed or barn basement to run in at night. They have been watched, so that when their lambs came, if it happened to be cold, they have been given attention. Small pens have been provided them in which lamb and mother might be placed for a day or two while they have been getting acquainted with each other, especially if we happened to be

FEEDING THE EWES

Their mothers have been well fed, and not overfed. They have been fed on the right kind of food. That means something cheap and home raised and full of milk. That means alfalfa hay, of course. There is nowadays no longer any reason for any man to say that he cannot grow alfalfa hay. He can grow it if he will learn the few things that he needs to know about drainage and manuring and the proper seeding. Well, these ewes, eating alfalfa hay, with a very little grain, are full of milk, and the lambs thrive from the start. The surplus of milk is taken away by hand right at first so that they will not suffer from engorgement.

STARTING THE LAMBS

Soon they are plump, playful little rascals, and wishing something to nibble with their own teeth. Then they are inducted into their own special apartment, where, right close to their mothers, they find troughs filled with grain—with oats and corn and clean, fresh bran, and with little racks of fresh alfalfa or red clover hay. These troughs are cleaned out every day and the surplus is given to the mothers. Thus they thrive like weeds until grass comes in the spring. When grass first comes, they are kept shut away from it until after it gets strong and sweet. Then they are turned out and the grain is fed out of doors. Sometimes we have made the fattest lambs on grass, throwing ear corn out on it as we would to the pigs. Of course, we have to fence a corner where the lambs can get the grain and the ewes cannot. We like to put out rollers in the creeps, so that the lambs may squeeze through and not hurt themselves, and pretty soon the shorn ewes are nearly as small as their lambs.

SELLING THE LAMBS

Managed in this way, we have sold our crop of lambs in three lots. One in April, and they averaged eighty pounds and brought a long price; the younger ones going again in May, and weighed above eighty pounds, and the very latest and the culls went in June, and they also averaged above eighty pounds and brought also a good price. And of them

all there was not a sick or wormy lamb. Then they were all gone and out of the way, and there was no dread of parasites whatever among the lambs that summer.

And the ewes did better, too, to have their lambs gone early, so that they got fat and hearty and able to resist better what germs might find lodgment in them.—Willis O. Wing in Successful Farming.

Hogs in the Straw

One may yet frequently see, as he travels over the country, hogs burrowing in the straw pile. Not infrequently the straw pile is the only shelter for hogs in sight.

This is an extremely poor way to shelter hogs. Generally it is an extremely expensive way.

The hogs get too hot in the straw. Then when they leave it to eat or drink they get chilled. The result is disease in due time—likely "thumps," which is lung fever.

Hogs should be well protected from rain and snow. The hog shelter should always have a tight roof. Cold wet hurts the hog a great deal.

Given a tight roof, if the hog is fairly well protected from the wind he will, unless he is sheltered alone, need no litter. He is better without it.

The best hog shelter has a tight roof, tight sides on the north, west and most of the east, and no bedding but dry earth. If there are three or more hogs together in such a shelter they will keep warm enough in any part of Illinois, Iowa or Missouri.—The Farmer's Call.

Jottings by a Hog Feeder

I have been feeding hogs for a number of years and have had almost no losses, while all around me so-called cholera has devastated one herd after another. Here are a few of the things I did and did not do, which I believe kept my herds from disease:

Do not feed an extreme green corn diet.

Do not crowd the young stock unnaturally.

Keep clear water before them all the time.

Keep the sleeping quarters clean and dry.

Have good shade during the warm weather.

Give the hogs salt and ashes, especially hard-coal ashes, and an occasional dose of copperas and sulphur in the slop. Be particularly careful about this with the hogs that are in the feeding pens.

Keep the hogs and their yard in a sanitary condition and watch the herd carefully, in order that no disease may get a start.—J. P. Fletcher in The American Cultivator.

What a Good Bed Means

Did you ever stop to think, at night when you were lying in your soft, warm bed resting after being out in the cold all day, that stock appreciate the same comforts as much, and must have them or suffer? If you never thought of it and don't believe it, just try one night sleeping in the woodshed on some corn-cobs with a damp horse blanket for a cover, and then you are getting just as many of the comforts of life as much of the stock do. They may live through it and not complain, but they have their way of paying you back, and it will not be in growth or the full pail of milk. Comfort means thrift and production. Ill comfort and suffering mean poor stock and no money in the business.—Forest Henry in Northwestern Agriculturist.

A Good Combination

The farmer who has good cows and good hogs is fortunate. Either of these alone is a money maker, but the two together are an ideal combination. Some good milk cows, a hand separator and a bunch of pigs squealing for the skim milk will write dollar signs all over the farm if you stay by it long enough. For two or three years past hogs have been bringing a good price and so have butter and milk. The profit from the hogs depends largely upon the economy with which they are grown and fattened. This can be done best with separator milk—there is no question about it. Experiments and experience both have proved it many times. Young pigs can be put upon the market early if fed judiciously with skim milk. The separator is important in this combination, because without it you cannot get the best returns from the milk. Separator milk from the creamery is all right, but it frequently

happens that you lose enough in quantity to make a decided shortage at the pig trough. Skimming by the gravity system suits the pigs better, because they get more butterfat, but it draws harder on the farmer's pocketbook and does not pay. And now we get back to the original proposition, the cows. You might as well try to make a watch without a mainspring as to work this combination without a cow. In fact, the dairy cow is necessary in almost every successful farm combination. There are many men who will say that I am wrong. They may be justified in their faith, but they will soon have to come around to this theory. High-priced land and the beef steer cannot win out.—Kimball's Dairy Farmer.

Silage as a Horse Feed

I know silage is a good feed for horses, for I have tried it. I have not, however, fed to any great extent, because I did not have as much silage as I wanted for both cows and horses. I thought more of my cows than I did of my horses, so the cows had all they needed and the horses had to go short. One winter we had a brood mare that was fed silage all winter, probably twenty pounds a day. She had some hay and straw to go with it, and no grain except what was in the silage, and she came out fat and with a glossy coat in the spring, and had a fine, healthy colt. Horses like silage as well as cattle do after they get accustomed to it. A man in Michigan a few years ago wintered two hundred horses on silage and straw exclusively, with no grain. They came through in fine shape, and the brood mares all had fine, strong colts. The Ohio Experiment Station tried feeding horses on silage through the winter and reported that they came through until spring in the best condition. W. C. Bradley, of Wisconsin, says that one year during spring work he was out of hay, and the only coarse fodder his horses had during all that period of hard work was silage. He says that his horses never stood work better.—C. E. McKerrow in Spirit of the West.

Crop Rotation Needed in the West

Much of the land in the West has already been cropped too long with wheat and corn. The fertility of the soil is showing signs of exhaustion and the land is becoming less productive. Simple tillage will not maintain the fertility of the soil. It becomes necessary finally to replace the plant food, exhausted by the continuous growing of crops, with the application of manure or chemical fertilizers, or by the rotation of crops in which legume crops, such as alfalfa and clover, are introduced in order to restore again the humus and nitrogen, exhausted in the ordinary methods of farming by continuous grain cropping. When land has been farmed a long time to wheat or corn it finally ceases to produce profitable crops. The soil is not necessarily exhausted in fertility, but by a long period of continuous cropping with one crop the diseases and insects which prey on the corn or wheat have accumulated in the soil, and the organic matter and humus and nitrogen have become more or less exhausted. The land is really "wheat sick" or "corn sick," what is needed more than anything else is a rotation of crops which will include grasses and legumes, by which the organic matter, humus and nitrogen exhausted by continuous cultivation and cropping with grain crops may be restored to the soil.

The young farmer who will introduce and practise such a rotation of crops, keeping live stock on the farm and feeding the roughage and some of the hay and grain, returning the manure to the soil, will not only raise more bushels of grain of better quality at a less cost a bushel during his next forty years of farming, but he will also have the extra income from the grass, hay and live stock, and at the end of forty years of such farming he will have a farm with more fertile soil and a capacity to produce larger crops of wheat and corn than it does to-day.—A. M. Ten Eyck in Cyclopedia of Agriculture.

"What appeals to me most," said an experienced observer, "about your pony contest is not the magnificence of the first few prizes, or the uniform quality of the lesser prizes, but the 'square deal' that you give, by making every contestant a prize winner. I don't see how you can afford to do it."

"Well," we answered, "we are not willing that FARM AND FIRESIDE boys and girls shall be disappointed. If they make any effort at all in our behalf they deserve a prize, and we mean to give it to them."

The experienced observer thought a moment, and then he said, with conviction, "On general principles I don't think much of prize contests, but I must say that the 'square deal' contest has my hearty approval."



There was a jolly little surprise party at the old homestead when the children and grandchildren came down like the wolf on the fold, for Grandpa and Grandma are always overjoyed at the descent of the younger generations from their city homes, and do their best to make the spring visit memorable. The smokehouse gives forth its meats, the oven its wholesome bread and pies, and the garden lends its choicest posies for the table. The long-unused high chair is brought from the attic for Baby, and the atlas and dictionary help to lift four-year-old Bob's shoulders above the board, at the head of which sits Grandpa, laughing upon his descendants, a halo of sunlight about his rosy face and silver hair.

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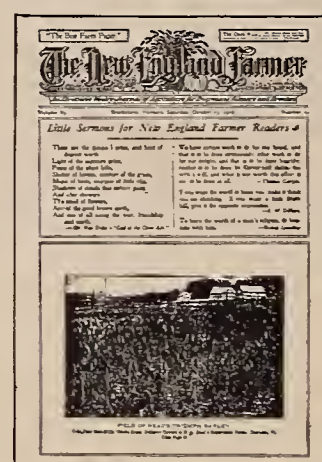
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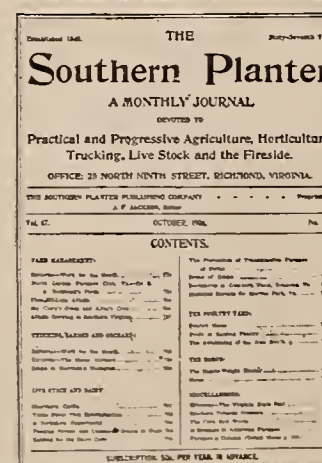
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Roofing a Hill

WHEN the weather reports in the papers tell us that during a certain storm an inch of rain fell at any particular place, it means that enough rain fell there during the storm to cover the ground to the depth of one inch. Suppose a square tin pan measuring just twelve inches each way and just one inch deep had been left out of doors on a level place during the storm. When the rain stopped, the pan would be level full of water an inch deep. A gallon measure contains 231 cubic inches. The pan measuring twelve by twelve by one inches would contain 144 cubic inches. Had there been two pans of the same size placed side by side, each would have collected 144 cubic inches, or 288 inches of water, or one gallon and 57 cubic inches to spare. So we see that two square feet of surface in an inch of rainfall will collect one gallon and one quart of water.

For convenience we may omit the extra quart and say that as a rule an inch of rain will give half a gallon of water for each square foot of surface on which it falls. Thus the roof of a house, that measures twenty-five feet each way, contains 625 square feet of surface, and in an inch of rain would deliver at the eaves 312 gallons of water. A house measuring thirty by forty feet would give 600 gallons. Knowing this, it will be easy for any one to measure the buildings on a farm—house, barns, sheds, etc.—quickly estimate the roof surfaces, divide the total by two, and thus find the number of gallons that could be collected from the roofs in one long, heavy storm. To many people the amount of water in gallons will be a surprise. A good-sized barn, one hundred by five hundred feet, would give two thousand five hundred gallons in perhaps less than twenty-four hours—an amount of water that, if stored in a cistern or, better still, in a tank in the loft of the barn, would be very handy in case a lamp upset in the kitchen or the neighboring wood lot were set afire by some smoker.

Then, if we examine the records of the state in which we live, we can find how many inches of rain fell in a year. For instance, in parts of New England the rainfall is forty-three inches in a year. This includes the snow, but the snow in melting supplies water as well as the actual rain. In the Southern states the rainfall is all in the form of water and the snow need not be considered. Suppose the rainfall in your state or your neighborhood is forty inches, then the big barn would give forty times 2,500 gallons or 100,000 gallons—a water supply that would carry many a crop over a drought.

There is one place in North America where there is not a single well, and yet it contains a population of sixteen thousand permanent residents, and its chief city is full of great hotels that entertain many thousands of tourists and visitors every year. The land is fertile, and large crops of farm vegetables are raised and shipped to New York. How, then, can the people live without wells? They depend entirely on the rain, and collect every drop that falls on every roof in the place. Even this is not enough, so they roof the ground and collect the water in great stone cisterns. The accompanying photograph, taken last winter in the Bermudas, shows how this is done.

The land is formed of white coral rock, and over this is a very rich soil. When a family wishes a water supply, they select a steep hillside and mark off a space large enough to supply their wants, then remove the soil down to the bare rock. A stone wall is then erected all around the place to keep out animals and keep the place clean. At the lower end of the slope a cistern is built in the ground, and a building built over it to keep out the sun and keep the water cool and sweet. The picture shows the cleared space on which the rain falls, the three walls, and the building covering the cistern. Such a rain collector covering an acre would collect in one year over 870,000 gallons of water, or enough for the fire department of a village.

If the people of Bermuda collect all their water for drinking, cooking and washing by roofing their hills, what are you doing about the tens of thousands of gallons of good water that runs to waste off the roofs of your farm buildings? Why complain of drought and low wells when the rain drips from your eaves unnoticed and uncared for? Better build a tank on your chamber or second floor, and guide the rain water from your roof into it, than let the children go without a bath room. Why not roof over some of the bare, rough, rocky hills in your neighborhood and supply your village with water for your village fire department? With the improved modern inexpensive roofing materials it would not be difficult to shingle an acre of some high useless hill, run the rain into a big cistern on the hill, then pipe the water to a neighborhood or village for fire purposes. Better do that than suffer a single family to lose everything in a night.

CHARLES BARNARD.

Farmers' Correspondence Club

Qualities of the Iron Cow Pea

Cow peas are becoming one of the great soil-improving crops of the country. For a long time the cow-pea crop has been regarded as one of the best crops that could be planted in some sections of the South, but it has been only in recent years that the crop has attracted national attention, so to speak. This is due to the improvement in varieties and a greater study of soil conditions.

While there are more than one hundred and fifty varieties of the cow pea, there are a few of them so much superior to the others that it is useless to plant any but the half-dozen best ones. These are recognized in the South under the names of the Whippoorwill, the Unknown Whippoorwill, Unknown, Wonderful, Black, Iron, Sugar Crowder and Little Cream. The latter two are table peas, and the Iron ranks as the very best for all sections, except possibly the New Era, which might be best for extreme northern sections, as it is a pea that requires but a short growing season.

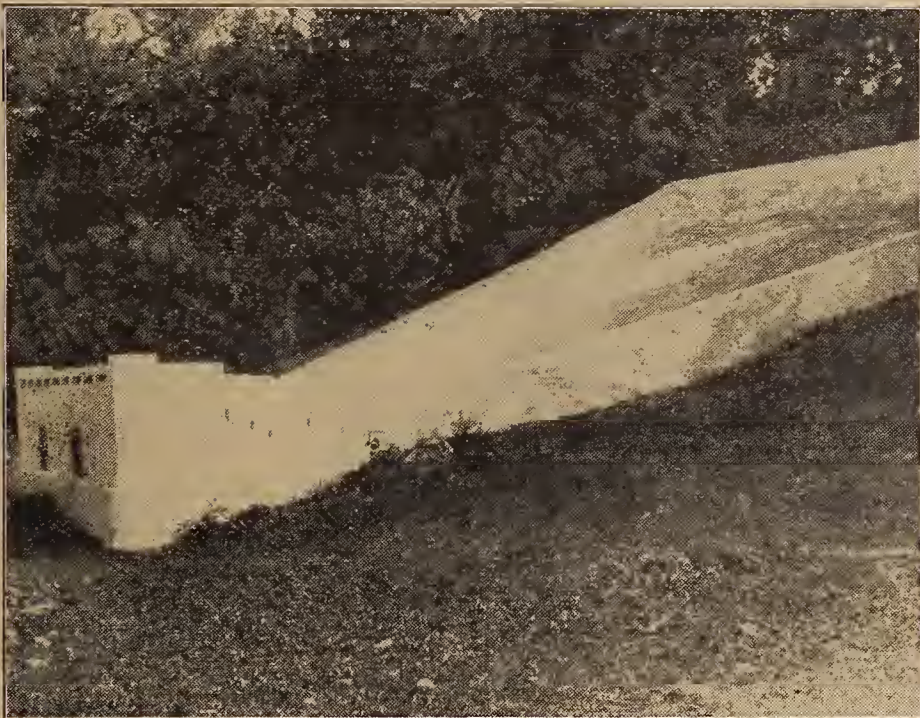
In many sections of the South it has been considered impossible to grow a crop of cow peas on account of wilt, or root rot, but the Iron cow pea remedies this trouble. Unfortunately, the supply of seed now does not equal the demand, and there are many farmers who do not recognize its value as a resistant pea. Some two years ago I experimented with

highest-priced goods, while the farmer may get better results from the use of goods not so costly.

Fertilizer manufacturers, in order to help their goods to sell, have adopted names implying that the goods have been specially prepared for certain crops, such as Champion Corn Grower, Potato Fertilizer, General Crop Fertilizer, etc. Then they have adopted the general name of Complete Fertilizer, which is made to include all mixed goods that contain all of the three elements—nitrogen, potash and phosphoric acid. The name does not indicate what quantity of each element is contained in the goods. There may not be one per cent of each of the three elements found in the goods, and yet it is called a complete fertilizer.

Let us consider what the complete-fertilizer idea conveys to the farmer who is not well posted on fertilizers. He supposes that a complete fertilizer contains the elements in the ratio that they are found in the crops which he grows, and he gets the idea that if he uses a complete fertilizer year after year that he is supplying to his soil the amount of plant food that his crops are taking out, and that he may go on year after year applying complete fertilizer to his land and that the soil will not become exhausted. Why should it, if he is giving as much as he is taking?

Then the special fertilizers, if they are considered in the light of reason, are not



ROOFING THE HILL

this pea for the United States Department of Agriculture, and I was so pleased with the result that the following year I planted some twenty bushels for hay. Aside from its disease-resistant qualities, the Iron pea holds its foliage longer than any of the common varieties, even under ordinary conditions, and this makes it valuable under all conditions.

Another feature to be added to the commendable qualities of the Iron pea is its soundness of seed. It will keep through the entire winter season and germinate well if left out in the fields, and I have seen acres of them making good hay when the oats, which had followed a previous Iron cow-pea hay crop, had been cut off and no preparation given the soil.

The cow-pea crop is a salvation to all sections of the country where the land needs renovation and building up.

J. McNeill

Special and Complete Fertilizer

The season will soon be at hand when many farmers will invest in commercial fertilizer. While some farmers are pretty well posted on the fertilizers, there are others who will trust to the dealer or agent to select the proper fertilizer to buy. The dealer and the farmer view the subject from different standpoints. They occupy different positions when it comes to dealing with commercial fertilizer. The dealer is interested in the profit which he gets from selling the fertilizer, but the farmer must look to increase of crops from the use of the fertilizer for his profits. Since the profits to the dealer are usually calculated by a percentage upon the cost of the goods, it is to the interest of the agent or dealer to sell the

what they claim to be. We may take a list of say special corn fertilizer, and examine the analysis as given on the tags, and no matter how many different manufacturers' special corn grower brands are used, I will venture to assert that no two of them will agree in analysis. It is the same way with all the special brands. The so-called complete fertilizers are as variable in analysis as they can possibly be. No two of them will agree. In the usual complete fertilizer there is not enough nitrogen in a hundred pounds to grow two bushels of wheat, and many of them do not contain nitrogen enough in one hundred pounds to grow two bushels of corn. Usually not more than three or four hundred pounds of fertilizer are applied to the acre of corn or wheat. There is usually enough phosphoric acid applied when two hundred to three hundred pounds of fertilizer are used to the acre to grow a good crop, but the nitrogen and the potash are both deficient. The complete fertilizer and the special fertilizers are snares and delusions that are the means of deceiving the user. They are calculated to prey upon the prejudices of the ignorant and to give the manufacturer an excuse for charging a very high price for his mixed goods. The fact is that we often get as good results from the use of a superphosphate that costs fifteen or sixteen dollars a ton as we do from the so-called complete fertilizers that cost from twenty-five to thirty dollars a ton.

The only remedy I can see for the correction of such impositions is for the farmers who use fertilizers to study up on the subject and to insist upon getting what they want. By experimenting and studying the conditions of our soils we may learn facts about fertilization that are worth dollars in money saved and also in increase of crops.

A. J. LEGG.

Jottings from a Farmer's Log-Book

A good many times we men farmer folks find fault with the good wife for not having meals ready on time, when really the fault is our own. There is the matter of good dry wood, for example. How that helps things along! It is a job to take green wood and get the meals around on time. The women folks do a great deal better than we men would or could, and they have a wonderful sight of patience about it, too. The right thing for us to do, and the thing every good farmer will do, is to have the woodhouse stored with nice dry wood. Some farmers are quite a good deal behind the times in this respect. They live on the hand-to-mouth plan. It is a costly thing in every possible way we may look at it. With every farm house there ought to be a good woodshed, and a little further away a good house for storing green wood to be cured and put into the kitchen shed later. It is always economy to have plenty of good seasoned wood. It also tends to make the home life sweeter and better.

Some years ago I had an eye opener on the matter of running accounts at the store. I never had done it since I was a boy and had the care of the household on my shoulders. Father died in the army. I was the oldest boy. There was a mortgage on the farm, and it was nip and tuck, with plenty of the nipping, to get along. We did have some store debts to pay in those days. But what gave me a good insight into the folly of the thing not long ago was when a merchant said to me, "We have to charge a little more for our goods because there are so many poor debts. We must make up the loss somehow." So he took it out of the men who do pay for what they get! I never thought it just right for the man who pays as he goes to have the debts of the fellow that never pays saddled on him. Do you? How much better it would be for us all, brother farmers, to pay as we go along. No debts at the store is a motto I wish we might all live up to. It might come a little tough at first, but after we once got fairly started it would work all right and save us a lot of money.

Right along this line is the matter of buying groceries and other farm household necessities in large quantities. We often buy at a sacrifice because we only get a little bit of what we have to have. There is saving in buying in large lots. Of course, there may be such a thing as overdoing this, so that there will be a loss on some articles before we use them up. I remember, too, how my wife laughed one day in our early farm experience when I brought home a nice lot of goods bought at wholesale prices. I did not know as much about running a household as I have since learned, and I thought a good supply of nutmegs would be a fine thing. So I bought some. When wife opened the box and poured out something like a half peck of nutmegs, she just shouted. "What in the world are you going to do with so many nutmegs?" she asked. "Why, there are enough here to last a lifetime!" But there are many things that can be bought by the quantity very economically. Take sugar. We all use a good deal of it. Why not buy a hundred pounds at a time? We can save money that way. It is a good thing to look into this. Pennies saved grow into dollars sooner than we think.

Edgar L. Ellsworth

The "Corn Belt" Farmer

[CONTINUED FROM PAGE 1]

small the teams walk very slow, to avoid covering the corn. If a hill is covered, the team is stopped, and a long paddle is used to uncover it. Most farmers go over the corn four times with cultivators. Some use a two-row cultivator with three horses.

With one hundred and sixty or one hundred and eighty acres in grain he has from twenty to forty acres for meadow, etc. He ought to have fifteen acres in pasture for horses and cows, and ten acres in meadow. If he has a clover meadow he will cut it in June.

As soon as possible he commences to cut oats, even if they look a little green. Here he will employ an extra man if he can. Frequently two neighbors join forces, and as fast as the grain is cut it is shocked up.

Then some one will start thrashing. Here work must be exchanged, for the large thrashing machines are used, and it takes twenty-four men to keep the machine at work. For two or three weeks everything must be put aside until thrashing is done. Then there is a lull.

If grain has not been marketed, it can then be done, buildings looked after, straw baled for market except what is needed on the farm, manure drawn out and spread.

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U. S. ELLSWORTH.

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Gardening

Diseases of Seedling Plants

I HAVE often lost a considerable propor-
tion of my cabbage and beet plants
on the greenhouse bench, and at times
even onion plants, in consequence of
the attacks of some disease or diseases,
such as the common damping-off fungus or
bed rot. I believe in my own case the
bed rot was the real culprit rather than
the damping-off disease. The only known
method of treatment which promises re-
lief from these enemies of seedling plants
in the greenhouse or hotbed seems to be
sterilization of the bed soil by steam or
otherwise. If steam were available in my
case, I would surely expose all the soil
to be used for benches and flats to high
steam heat, so as to kill not only all infec-
tion, but also all weed seeds and insects.
As I do not have the steam, I am now
trying the formalin treatment recom-
mended in Circular 59 issued by the Ohio
Agricultural Experiment Station. The
treatment, however, should be given in the
fall and the beds left without disturbance
in spring when prepared for seeding.
When purchased in carboys of one hun-
dred pounds, formalin (forty per cent
formaldehyde) may be obtained at a cost
of twelve to fifteen cents a pound; but
in retail drug stores, when a few pounds
are bought at a time, four or five times
the price mentioned will be asked.

Make a solution of two to two and one
half pounds of formalin in fifty gallons
of water, and apply one gallon to the
square foot, making an application of part
of it at intervals of a few hours, so that
the liquid is equally absorbed by all parts
of the bed soil. Before applying the solu-
tion the beds should be fairly moist and
friable, or made so by watering, and
spaded up to the usual depth, and any
manure desired may be mixed with the
soil before drenching. Mineral fertilizers
may be applied in spring. More experi-
ments with this method of treating the
soil, however, will be needed before we
know where we are. But the object—
freedom from these troublesome fungus
diseases—is worthy of a good deal of
effort.

Buying Seed Potatoes

A reader in the eastern part of this
state (New York) asks me where he can
procure Early Ohio potatoes for seed, as
they are not grown in his vicinity. The
Ohio is an old standard early variety and
still listed by the majority of leading seed-
houses. Look up the advertising columns
of FARM AND FIRESIDE or other leading
agricultural periodicals, and send for a
copy of each of these seed catalogues, and
I think you will find the Ohio offered by
some or most of them. When planting
time approaches, many potato specialists
also have their cards in the papers. Com-
pare prices as you find them in the cata-
logues and price lists, and buy where you
think you can do the best.

Profitable Onions

H. C. P., who lives in the western part
of New York State, gives me the following
report of his experience with the Gibrat-
tar onion: "I have a good trade started
in Gibraltar onions, and do not wish to be
without them if I can help it. I have sent
them to Auburn and Ithaca grocers. They
are retailing them at eight cents a pound.
These onions keep with me as well as the
Prizetaker. I had them last May as fresh
and nice as they were in the fall. My
farm borders on the east side of Cayuga
Lake, and we usually have no frosts be-
fore the middle of October or the first of
November; consequently we have a long
season for the crop."

I have now as nice and perfect speci-
mens of Giblartars and Prizetakers in my
cellar as one could wish, and they are in
every way the equal of the imported
Spanish. Most people pronounce them
even sweeter and milder, and willingly
pay me one dollar a bushel, or proportion-
ately more by the peck or peach basket.
With me the Gibraltar does not keep so
well as Prizetakers, but I always dispose
of any crop soon after it is harvested, and
thus avoid losses. The onions are very
profitable.

Asparagus Growing

More inquiries about asparagus have
been received. It is one of the crops
worth inquiring about, and worth plant-
ing and taking care of. For many years
growers have been afraid of an overpro-
duction of this vegetable, yet the demand
has persistently outstripped the supply,
and asparagus is now in greater demand
and more profitable than ever. The pros-
pects are that good "grass" will sell for
years to come, and make most excellent
returns for successful efforts spent in

producing it. Rich (or well enriched),
warm, well-drained land is the first con-
dition of success. If you have that, and
plant strong, one-year-old plants in any
manner, provided they have room enough
and can be well cultivated, and annually
fed with a coat of old manure, or with
any good complete fertilizer or "vegetable
manure," or with wood ashes, bone (or
superphosphate) and nitrate of soda, you
are liable to get a crop. The plant is
rugged and entirely hardy. The winter's
cold will not hurt it. Let the bed get well
established before you cut it. Stop cut-
ting when the first early peas are fit for
the table. Then let the stalks grow up,
until fall. That is about all. There are
few things in the garden, however, that
will give even half as much value from a
given spot, either in table delicacies or
money from sales, as asparagus does.

Good Onion, Tomato and Cabbage

M. B. N., of Manassas, Virginia, writes:
"Please name the best onion to raise from
seed in Virginia, and when to sow it. I
can find no tomato to near equal what
we call 'Nicol's Favorite.' Also give me
the name of an early cabbage. I want
a medium-sized solid head."

I believe that the onions of the large
sweet Spanish type can be grown with
profit in Virginia. Seed may be sown in
an early hotbed or in greenhouse early
in the winter (January) and transplanted
to open ground as early as weather and
soil conditions or size of plants will per-
mit. The onion most usually grown (from
sets) in Virginia, I believe, is the potato
onion. If I lived there I would make an
effort to grow better onions and with
more profit. Sets of the potato onion
should be planted in the fall in the South-
ern states.

Whatever tomato you find succeeds best
with you, whether this be a local selec-
tion, like Nicol's Favorite, or any other,
plant it, and in the meantime do not fail
to test against it any sort that (from what
can be learned about it) is promising.
Stick to what is good until you find some-
thing better.

As to early cabbages, the first earlies
that are worth growing are the older
Jersey Wakefield, a pointed-headed sort,
and the newer Maule's First Early, the
latter a flat-headed and very solid cabbage.
For a first early I (and my customers)
prefer the latter. If you desire larger
heads you must look to the slightly later
large Jersey Wakefield or Charleston or
Burpee's All Head, or the still later Win-
ningstadt or Henderson's Early Summer
—all good cabbages.

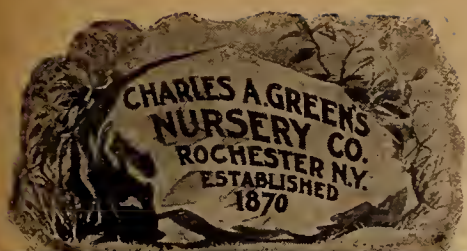
Early Tomato Plants

For very early tomatoes we must first
of all have very early strong plants of
desirable early varieties, of which we now
have several that can be relied on, such
as Earliana, Maule's Earliest, June Pink,
etc. I use my own selection of the
Earliana type, and am sure of very early
tomatoes and a good quantity of them.

The one task the grower has to face,
when he starts tomato plants very early,
say the fore part of February, is to keep
them from getting too tall and spindling.
I accomplished this, first, by giving them
soil of only ordinary fertility; then by
providing only a moderate, never a high,
temperature, by watering only when ab-
solutely necessary, and finally by repeated
transplanting, every time to a larger dis-
tance apart. What I want is to secure a
slow but healthy, short and stocky growth.
Should they ever "get away from me,"
however, and grow up taller than desir-
able, I do not hesitate to cut them back,
in extreme cases even severely. This
treatment does not hurt them in the least,
but helps to keep them down low, so that,
when they are planted out in open ground,
they will not lap over, but stand up
straight and continue to grow without
interruption.

Most of my earliest tomato plants are
all boxed off, each one separately, in a
regular box of four or four and one half
inch cubes. A week or two before taking
them out to open ground (about June 1st)
I spread these boxes apart so as to give
the plants more room; and just before I
get ready to plant them out in the field
I give each box a thorough watering or
soaking. All this helps the plant over the
shock of the transfer with hardly any
check. When we can get a good price for
very early tomatoes, all these precautions,
including the use of plant boxes, pay well.

H. Greiner



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Fruit Growing

Grubs in Land—How to Destroy Poison Ivy

A. W., Red Wing, Minnesota—Any ground that is badly infested with grubs this year will likely be free from them next year. Grubworms are the immature form of the June bug. They live in the ground for several years before emerging as a perfect beetle. The beetles lay their eggs in summer where they can find food. This is generally in good land; hence it is not desirable to grow some crops that grubworms are especially fond of, following the breaking up of the sod if the grubs are abundant—as they frequently are.

There is practically no way of getting rid of these worms, but one should bear in mind something of their habits. I think late-autumn plowing is generally helpful in getting rid of these grubs, but not a satisfactory remedy.

The only practical way of exterminating poison ivy is to hoe it out and keep it cut down for one season. Generally this ivy occurs in waste places where it is hard to combat. Under such conditions it may be best to spray it occasionally through the summer with strong potash lye, kerosene or strong salt brine, or anything that will destroy the foliage. Where the place is small, burning may be desirable, but where one is not likely to be poisoned by it, the best remedy is generally to keep it cut down through one season.

The best fertilizer for potatoes for this section is probably well-rotted stable manure which is free from the germs of potato scab. In order to be sure that it is thus free, scabby potatoes must not be thrown on the manure pile nor fed to animals, since the germs may live under such conditions and carry the disease to the land. Where stable manure is not available, a good clover sod is about as satisfactory as any fertilizer I know of for this crop.

If you wish to use some of the commercial fertilizers, you will find that unleached hard-wood ashes, used at the rate of not less than thirty bushels to the acre, or a fertilizer made up of five hundred pounds of ground tankage and two hundred pounds of the German potash salts, known as kainite, are good. However, I do not think you can afford to use a commercial fertilizer in Minnesota, nor do I think it at all necessary to do so to secure good results.

Setting Old Currant Bushes

E. M. B., Eaton, Ohio—It is seldom desirable to set out old currant bushes, as they are not so thrifty, seldom bear much earlier than good young plants, and generally cost more and are more expensive to set. However, almost any old wood on currant bushes that has much vigor in it will bear fruit, and I have no doubt but what your bushes will fruit next year, although they have not sent out any new suckers from roots. If you will examine the new wood made on the old branches, I think you will find a large number of well-matured large buds—which are fruit buds—near where the growth started last spring. I think the plants should be well cultivated and perhaps manured if the soil is not in good condition, and then you will get some sprouts from the roots.

In the present weak condition of the plants I do not think it advisable to prune this year, but allow all the wood to stand. But cut out any very weak or borer-infested shoots. From your description, I do not think it necessary to apply wood ashes or sawdust. You will find that four and one half by five feet is a little too close for strong-growing varieties when they have reached full bearing age. I would much prefer to have them six by six feet.

Caring for Seeds of Red Cedar, High Bush Cranberry and Cherry

D. D. H., Medford, Ohio—All evergreen seeds that have wings, such as those of the pine, spruces, etc., are best when kept dry over winter and sown in the spring, although under especially good circumstances autumn sowing is successful. In the case of red cedar and high bush cranberry, also Richmond cherry seed, I think it best to mix with sand in the autumn and bury out of doors. If they are now quite dry, I would suggest that you get some sand, mix the seed with it and keep them for several weeks in moist sand, then bury outdoors or put the box outdoors and cover it with litter of some kind, so that mice cannot get at the seed. High bush

cranberry and red cedar seed will uniformly lie in the ground the first season without starting, but will come up the next season. In the case of these seeds you can see it would not be necessary to plant them out next spring, but in my practise I find it best to sow them in rather sandy loam in the spring and cover the bed with hay, allowing them to remain in this way over summer.

In the case of Richmond cherry stones, they should start next spring, and care should be taken to plant them out early, as they generally start soon after thawing out in the spring.

Pecan Trees in Nevada

G. G., Wadsworth, Nevada—It is my opinion that at low elevations it would be possible to grow the pecan, provided the soil was of a suitable kind. Such trees may be obtained from almost any of the Western nurserymen. You had better use seedlings only for your experiment, and not try grafted plants, as they are much more expensive.

Book on Fruit for California

A. A. C., Orloff, California—For the state of California and adjoining sections, I think the best book for you to get on the general subject of fruit and fruit-tree growing in California is "California Fruits," by Wickson. Professor Wickson has for many years been Professor of Horticulture in the University of California.

Samuel B. Green

Walnuts and Butternuts

Black walnuts and butternuts have never been considered of much account when making up the farm inventory, but judging from this season's prices, these nuts are of some consequence. Almost unheard-of prices have been paid by storekeepers for the few they could secure. Even the large, thick-shelled, despised bullnut has commanded attention this season. One storekeeper told me the other day that he had sold out some eighteen bushels at ten cents a quart. We don't hear much about nut orchards, but there seems to be an opening for a source of profit by planting a few hundred trees of the walnut and butternut. The trees need no petting, will grow and thrive where many fruit trees could not be expected to, produce some nuts several years earlier than most people imagine, and the crop is the easiest garnered produced under the sun. **New York. E. H. BURSON.**

Remarks on Spraying

From our present knowledge there is nothing to be gained by using the Bordeaux mixture as a winter spray. If any winter spray is used, it should be the lime-sulphur solution, which acts both as fungicide and insecticide. There is, however, considerable evidence to show that Bordeaux applied at the time that the blossoms are opening will do much toward the control of the apple and pear scab. This early spraying should not be neglected with pears, and it may prove profitable in the treatment of apple scab.

The powdery mildew was carefully observed in our Bordeaux experiments this year, but we could demonstrate no advantage from its use on this disease.

Quite as important as the material used is the method of application, for spraying must be done thoroughly, and it is false economy to be too saving of the spray. Do the inside spraying first, and then, beginning at the top, apply the over-shot or outside spray. Do not finish the sides and bottom until the top is thoroughly sprayed. The men should walk completely around the tree, and spray directly at it from all points. Do not try to spray around a corner. Before leaving any part of a tree, the men should stand well back and spray the tips of the most extending branches.

The orchardist should insist on the tops of the trees being sprayed first and thoroughly. If the upper work is done well the lower branches will receive almost enough spray from the drip, and they can then be finished quickly, thus avoiding the greater drip loss which comes about through beginning at the bottom.

In summer spraying, material should not be wasted on the trunks and large limbs free from foliage.—W. H. Volck in Bulletin issued by Santa Cruz County Board of Horticultural Commissioners.

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Live Stock and Dairy

Wanted! Cattle Improvement

LIVE-STOCK shows have up to the present been the chief agencies relied upon for promoting improvement in the breeds alike of horses, cattle, sheep and pigs. They were instituted for the very purpose, and have no doubt done good service, although maybe not so much for cattle in recent years as when they were first established.

Ordinary farmers may visit the show and admire the premium stock, but go home and merely lament the impossibility of their being able to breed such animals. If accused of keeping mongrels, they have had an unanswerable reply—that their finances will not allow them to breed better ones. One can scarcely go through any district in the country without being forcibly impressed with the vast number of ill-shaped, low-quality, coarse mongrel animals met with, from which only one conclusion can be drawn, that the proportion of pedigree stock to them, taking the total of the district, must be very small. Now, farmers do not breed these inferior specimens willingly or by preference, but because in many cases they cannot afford to lay the foundation of better herds, and are unable to have access to any pedigree bulls to make things better.

Why could it not be possible for such a bull as is required to be established in certain districts, say at the instance of the local agricultural society, or by a local syndicate, or if it be a dairying district, by the private enterprise of some individual grazier, who would find it pays to allow the services of a pure-bred bull free, on condition that he would have the calves at a fixed fair price? He would find that calves from the most common dams would do well if they had pure blood from their sire. The prepotency of the bull on progeny is well known to be of a truly marvelous character, especially when the character of the herd of cows is of the low order.

This scheme, if generally adopted, would no doubt cause a great many more calves to be reared. They are often sacrificed now at a tender age, because they are not worth the trouble of rearing. Dairy farmers have been advised over and over again to keep pure-bred bulls themselves, that their calves may be valuable to rear, and it has been frequently pointed out that if all the milk is required for direct sale or for the factory, gruels from milk substitutes, such as are advertised, would enable them to rear their calves successfully without any milk whatever. Well-bred calves would do far better on such milk substitutes than mongrels, but the potency of a pure-bred bull is such that the calf of the mongrel dam, if by such a sire, would be profitable to rear for grazing. Hence the problem can be worked out very clearly—that affording farmers in general access to pure-bred bulls is the keynote of the entire matter.

Nor does it follow that the system would be alone valuable to adopt when the cattle of the district is of a decidedly low order. We are probably only just beginning to learn what benefits are to be obtained by crossing different breeds of cattle skillfully, in the same way as horticulturists cross-fertilize plants and vegetables. Our Hereford, Aberdeen-Angus and other crosses of what may be termed the grazing aristocracy are regarded with envy by common eyes, and it is well worthy of consideration whether the adoption of the above scheme would not make such high-class grazing cattle easier to be raised by the bulk of farmers, who at present find it impossible to breed such high-class stock.

Anyhow, if the scheme could be worked there is no doubt as to the improvement in the cattle.

W. R. GILBERT.

Some Swine Questions

A Pennsylvania correspondent writes me as follows:

"I keep half a dozen good brood sows, from which each year I get two litters of pigs each, the yearly average from each mature sow being sixteen pigs. I can always sell these pigs at from six to eight weeks old for five dollars a pair. Will it be more profitable for me to sell the young pigs at this price (sometimes I get three dollars each for them) or feed them fat for market?"

"If the latter, at about what weight should they be sold for most profit?" "Corn is worth forty-five cents a bushel, oats thirty cents, middlings twenty-five dollars a ton and oilmeal thirty-three dollars a ton. I have also skim milk from twenty cows. Do you really know anything about hogs?"

Now, isn't that last question a refresh-

ing thing to ask a fellow right to his teeth? To ask one who used to do institute talk until every one went to sleep, and who writes for the farm papers until the editors blame their tired feeling on him?

In our good Keystone State I have two friends who are professors—neither of them, however, in the larger animal husbandry line—and while they are both pretty friendly to me, they are only politely friendly to each other. At one of our annual meetings I remarked to Prof. G., as Prof. F. was simply exhausting both his subject and his auditors, "F. seems to be quite full of his subject."

"Yes," yawned Prof. G., "he knows a great deal that isn't true."

Hence it becomes smart people to be modest and cautious, and, as Burns puts it, "Still keep something to yourself ye scarcely tell to any."

But I suppose I must make some kind of an answer to even as personal a question as the correspondent's last one, and will therefore say that while I know a little about hogs—of the swine family—there is a great deal I do not know. After all, in all matters relating to the great work of the farmer—in soils and crops and our animals—are we not all students and learners, with all our work full of questions? Those who "know it all" are fakes or fools.

Selling weaned pigs at two dollars and fifty cents each is not a bad farm proposition, providing they and their dams have been fed judiciously. That means forty dollars a year from sixteen pigs secured in two litters. I have seen it written somewhere that the cows of Pennsylvania do not average as much yearly returns as forty dollars, and the cows have to be milked twice a day, and should be fed at least just as often.

I may say, however, in passing, that it is a pretty poor cow that does not return more than forty dollars a year in milk, and if the thousands of owners we have of such cows can't do better with them, the cow men, like the pig men, had better ask some questions. Of course, the final profit in the production of any marketable commodity depends upon its selling price. In the matter of pork, just now we have good markets, and I see no reason why we should expect any serious market decline. The pork of America is made on corn, and notwithstanding we have now on hand the largest crop of corn ever grown, we see no weakness of prices. At this writing there are plenty of local markets in this state that are paying eight cents a pound dressed for pork.

I think I am perfectly safe in advising the inquirer that he will find good profit in feeding at least part of his pigs, up to about two-hundred-pound hogs, with grain and feeds at the prices quoted, as long as he can be sure of a net selling price of six cents a pound. By using skim milk, corn (both on the ear and ground), wheat middlings and oilmeal, good feeding hogs weighing two hundred to two hundred and fifty pounds at seven months of age should be produced at four and one half cents a pound.

"Skim milk from twenty cows" is quite indefinite in the ration of a lot of hungry pigs. The cows may be good ones, and give much milk, or be the average ones, and give but little. When milk is abundant the use of oilmeal may be light, but the continued use of it even in small quantities has a splendid tonic or conditioning effect.

Six sows producing yearly sixteen pigs means over one hundred hogs, pigs and sows, which is quite a hog population for the average Pennsylvania farm, and I am inclined to advise the correspondent that unless he is equipped to properly handle so many hogs, he had better sell half his pigs at weaning time and feed the other half. If every seven or eight months say fifty hogs weighing two hundred and fifty pounds each can be sold at six cents a pound, it means about seven hundred and fifty dollars, which sum can be added to the average Pennsylvania farmer's bank account very comfortably.

Then the manure. We Eastern farmers must have manure and commercial fertilizers, and the more we have of the former, the less we need to buy of the latter. Fifty hogs getting fat make "a pile" of manure if bedding be furnished and the product cared for.

The discriminating reader will of course understand that I am not counting this seven-hundred-and-fifty-dollar-hog-sale returns as all profit. No man can say just what part of it will be profit, but I know that with wise feeding and good hogs enough of it will be net to make it worth while.

I would advise using early maturing,

How to Buy A Good Vehicle

And Save Money. Difference Between "Buckeyes" and "Crazy Quilts."

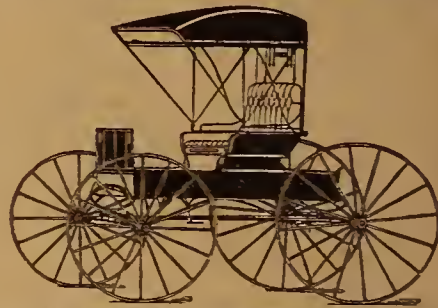
Intelligent farmers more than ever realize that the only legitimate price on vehicles is the manufacturers' price. Nobody cares to pay two or three profits on top of that.

But when you start out to buy at factory prices, you want to be sure you are dealing with a real manufacturer—one who makes what he sells and sells only that which he makes.

Of the scores of concerns claiming to sell buggies direct to consumer very few indeed are manufacturers.

Here is where the farmer's ability to properly choose comes in. Some mail order houses buy from different factories the cheapest constructed vehicles possible—work no responsible factory would send out bearing the manufacturer's nameplate. This work is sold "direct" to the unsuspecting buyer who really pays two profits, the manufacturer's and the seller's.

Another class of concerns merely assemble parts of vehicles. They buy cheaply con-



structed wheels from one factory, bodies from another, tops from another, gears from another and so on. These inferior parts are assembled into a "crazy quilt" sort of a vehicle which does not carry with it the responsibility of the manufacturer. Buyers of "crazy quilt" vehicles also pay two profits—the manufacturer's and seller's.

But how shall the farmer discriminate between the square deal manufacturer and the fakir? How shall he safeguard himself? Before buying he should say to the one claiming to sell buggies at factory prices: "You must show me."

Now, the manufacturer of Buckeye vehicles is both willing and able to prove to your entire satisfaction that he sells buggies of his own manufacture only; that his factory is the largest and best equipped in the State of Ohio selling direct to consumers; that no other factory in the country selling direct to the user makes its own vehicle bodies; no other makes as many different parts of vehicles. The factory of the manufacturer of Buckeye buggies is not a mere myth—a catalog picture. It covers a city block, standing in brick and stone as a monument to standard materials, honest workmanship and square deal business methods. The manufacturer of Buckeye buggies is endorsed by a Cincinnati National Bank, a Cincinnati State Bank and the Bradstreet Commercial Agency, Cincinnati or New York offices. But what is more important, this manufacturer is endorsed by thousands of farmers throughout the United States, who for years have had business dealings with this concern direct, and whose testimonials will be gladly sent to any one interested.

Therefore, when you buy a Buckeye Buggy you are sure to get a bargain. You get a well constructed, strong, stylish buggy—a buggy carrying with it the manufacturer's nameplate and responsibility; also the most liberal guarantee ever offered by a manufacturer; and as to price, you do not pay a profit to the jobber, to the dealer, or to the mail order fakir. You only pay the actual cost of economical manufacture, to which is added the fair profit of a responsible manufacturer.

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Live Stock and Dairy

good-eating, well-bred hogs—a kind that will lose only fourteen or fifteen per cent in dressing, instead of twenty per cent, as usually taken by butchers. Keep the pigs growing and ready for market at two hundred pounds; if not satisfied with market prices when the hogs weigh two hundred pounds, and you want to try your luck guessing what the price will be fifty or one hundred days later, you will not lose much in feeding the longer time, even if you sell at no further advance.

W. F. McSparran

The Prevention of Transmissible Diseases of Swine

The heavy loss from disease in hogs is largely due to transmissible diseases. The organisms that produce this class of disease usually enter the body in the feed and inspired air. Hence, muddy or dusty yards, especially if over crowded and filthy, filthy feeding floors, troughs and hog houses are largely responsible for the prevalence of hog cholera, swine plague, etc. As young hogs are less able to resist these diseases than healthy, mature animals, the necessity of using preventive measures at this season of the year is of double importance.

During the spring and summer wallow holes are formed in the yards and pastures. In case the hogs run in a large lot

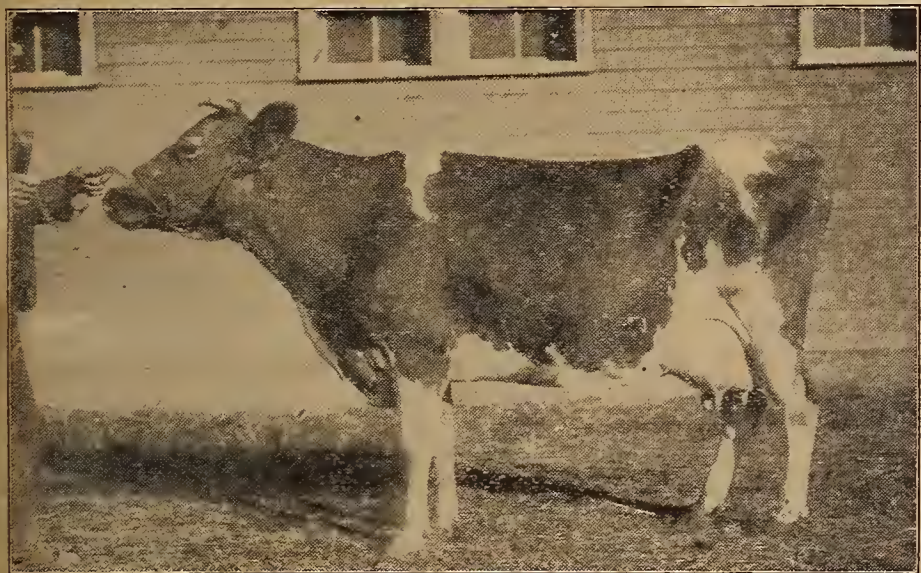
crowds, buzzards and dogs to distribute disease is not great in sections of the country where the carcasses of the dead hogs are disposed of by burying. Hogs from other herds should be placed in quarantine for three weeks before allowing them to mix with the herd.

Keeping the hogs under the best sanitary conditions possible, and using the necessary precautions in preventing infection from the outside, is the most satisfactory method of avoiding loss from this class of diseases.—R. A. Craig in Bulletin of the Indiana Experiment Station.

Inbreeding

There is little doubt that the employment of the scientific principle known as in-and-in breeding has been interpreted by some farmers to be synonymous with the long-prohibited plan of inbreeding. The old happy-go-lucky practise of breeding to the most available sire, regardless of kinship, still prevails to a considerable degree among a certain class of farmers. The evil effects of such aimless breeding are averted in large measure, however, by occasional out crosses and general exchange in stock foundations that arise from purely accidental causes.

In order that in-and-in breeding lend no sanction to this old method based on carelessness and the emergencies of breeders of no skill, let it be understood that the former principle is based upon a thoroughly careful study of the characteristics of the animals so bred. It has been observed that related animals of great bodily vigor may be inbred for



GOLDEN ANNIE. CHAMPION GUERNSEY COW AT ILLINOIS STATE FAIR

or pasture during the summer, it is often considered unnecessary to clean and disinfect the small yards and hog houses, and they become filthy and dusty. Muddy yards are especially objectionable, as they soon become filthy.

If necessary, the sanitary conditions of the yard can be improved by draining them, keeping the wallow holes filled in and taking the hogs out for a few months every year.

The unused lots can be cleaned and very frequently put to good use by plowing and sowing them to oats, rape, cow peas, etc.

In no place on the farm are disinfectants so necessary as in the hog houses and yards. Whitewash should be used about the houses at least once during the year.

Every two or three weeks at least the houses, feeding floors, troughs, etc., should be sprayed with a disinfectant. The tar disinfectants are the most convenient to use. These should be used in not less than two-per-cent-water solutions. An occasional spraying or dipping of the hogs in a one-per-cent-water solution should be practised.

Young hogs should not be given crowded quarters. In order to keep them in a healthy, growing condition, a proper diet should be fed. Healthy individuals possess a certain amount of power to resist disease, and this plays no small part in preventing it.

The entrance of disease-producing germs from outside sources should be carefully guarded against, especially if hog cholera is present in the neighborhood. The danger of carrying the germs in the mud and filth that may stick to the shoes of a person who has walked through yards where hogs are dying of "cholera" should be recognized. Dogs, horses, cattle, stray hogs and wagons may also act as carriers of disease. The opportunity for

a few generations, with the result that their points of excellence are more quickly and more indelibly stamped than by mating unrelated animals strong in the desired points. But as inferior points and evil tendencies are controlled by the same principle, the breeder must keep one eye on improvement and the other on deterioration; the latter is sure to ensue, sooner or later, while the former is merely probable. The man who follows the practise of in-and-in breeding always intends to stop on the safe side of the danger point; but the utilization of this principle in the past has not been marked by unqualified success. Its long continuance has usually been followed by the necessity of introducing a radical out cross for the purpose of restoring vigor and size to the animals highly developed in the desired line. Of course, all animals showing any weakness or tendency to disease must be vigorously rejected from the line of breeding, or these bad tendencies will become equally transmitted in a high degree.

From this it readily appears that careful policy in the hands of experts, fraught with danger at the best, should not be tampered with by ordinary farmers who do not appreciate its possible consequences.

Geo. Williams

Live Stock Notes

At the recent sheep show in Missouri the Shropshires attracted the most attention, although the other breeds were well represented.

The great improvement that has been made in French horses during the past twenty-five years is largely due to the establishment of horse-breeding farms under the direct supervision of the Department of Agriculture of France. *

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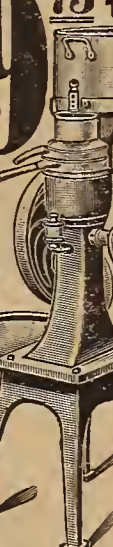
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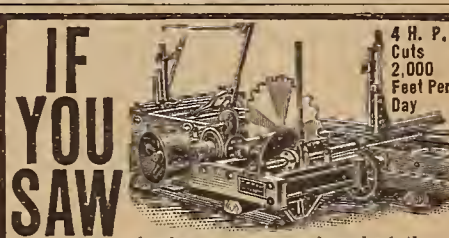
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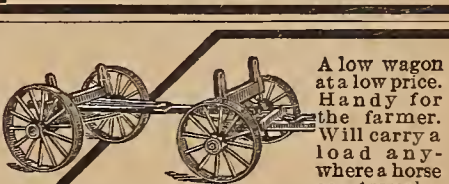
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Poultry Raising

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IF A BREED is desired for improving the table qualities of common fowls, but which is not above the average in egg-production, the Indian Game should give satisfaction. They are large, active fowls, not very pugilistic, and attain great weights. The cocks, when full grown, weigh from eight to ten pounds, and the hens from six to eight pounds. Indian Game cockerels are similar to the black-breasted Red Games, but are darker and richer in color. The hens are dark in color, being somewhat similar to the females of Red Caps. The breast feathers are double laced, which adds greatly to their beauty. This variety has clean, yellow legs, and a Malay shape, being very hardy and quiet. Their beauty is unexcelled, and their best reputation for some poultry raisers is that they can bear close confinement and still prove very profitable. They are somewhat rare, as they do not give as good results as layers compared with some breeds, and also because the larger majority of farmers are not disposed to sacrifice eggs for quality of flesh. Nevertheless, those who keep Indian Games are unwilling to discard them after giving the breed a fair trial for its table qualities. In the best markets quality is appreciated, and buyers are willing to pay for excellence. Poultrymen should endeavor to have the chickens as nearly full on the breast as the turkey, and it is not impossible to do so as is shown by a comparison of the Games and Dorkings with the Asiatics. As we decrease the inclination in fowls to fly we reduce the muscles on the breast. The Brahma, which cannot fly at all, has a sharp, prominent breast bone, and as the wings are seldom used the breast is deficient in meat. The Game, which uses its wings for flying, and also offensively, when necessary, has a breast filled with muscle, yet it is far behind the turkey in that respect. There is room for improvement in this characteristic, and it can be done with careful selection.

Clipping the Wings

The wings may be clipped, if necessary, or one wing may be shortened, but it should not be done in winter if it can be avoided, as the wings protect against cold and dampness. In warm climates clipping the wings destroys the beauty of the bird, but anything is proper if it serves a purpose, for which reason the clipping of a wing should not be overlooked if the hens are determined to fly over a fence. A mechanical contrivance on the fence will often keep them within bounds.

Geese and Pasturage

Geese are profitable because they require very little care, being capable of supplying themselves. The goose is a forager and grazer, and even alongside of the sheep will utilize all kinds of grass, and also assist poor land to earn a dividend. Geese can be kept in large flocks profitably, so that "specialty farming," in this line may be conducted on quite a large scale. They may be grown for less a pound than any other meat on the farm, while their feathers are also an item of profit. A mess of cooked turnips, thickened with bran, twice a day will supply all their food wants in winter. When laying they should then have animal food.

Important Spring Work

Cull the flock again, as this is an appropriate time for comparison of the individuals. Discard all pullets that do not show favorably as to time, size and condition, and save space by getting rid of the inferior birds. The hens, as well as the pullets, should also be getting ready for spring laying if they have not been producers during the winter. It will not pay to feed two hens in order to have one of them produce eggs. The flock should be culled, the layers retained, and unprofitable ones sold. Business methods should prevail. Keep nothing that does not at least pay for its feed. By weeding out the unprofitable stock a higher standard will result. In the observation of the individuals much can be learned. The good hens become pets, and pride in their individual excellence on the part of the owner results. The young stock will then be hatched from only the best producers instead of from eggs taken indiscriminately from the egg basket.

No farmer who will carefully cull out the drones need depend upon others to

produce breeds for him. Pure breeds should be used, however, and especially pure-bred males. Even with the choicest stock the matter of selection should not be overlooked. There are drones and idlers, even in the yards of the most careful breeders. There is room for improvement in every direction. It is important to impress upon poultrymen and farmers the value of a close scrutiny of the stock, and teach the fact that a profitable flock can be made up of what may look like unpromising material, by gradual selection.

Bone Cutters

The bone cutter, for cutting green bone, is really a necessity, where bones from the butchers can be obtained. Cut bone from the meat markets is almost indispensable, is a perfect food, and its cost is more than repaid in the return from the hens. Bone cutters have been greatly reduced in price, compared with former years, and have also been wonderfully improved. Every farmer or poultryman who keeps poultry will find it a good investment to purchase a bone cutter.

Distinguishing the Ages

It is difficult to distinguish ages of fowls with some breeds, even the most expert poultrymen at times being unable to solve the problem. As a rule the plumage of a pullet is brighter than that of a hen, and her comb is smooth and rather free from roughness, while the comb of the hen is somewhat rough and less brilliant in color. The down under the wings of the pullet is softer and the skin is tender, some hens having little or no down, and the skin of the pullet shows the veins when examined under the wings, which is not always the case with hens. The legs of young birds are nearly always smoother than those of the old ones, the spurs of the males beginning to appear when the birds are six months old, the spur increasing in length each year. The toes of young fowls are more flexible, and the eyes and faces are much smoother than with fowls of advanced ages. There is also a quickness of action; a brighter expression of the eyes, and a generally cleaner and newer appearance on the part of the younger birds compared with the older birds.

Individual Characteristics

Experiments made in order to produce flocks containing "200-egg hens" demonstrate that the ability of such hens to transmit their characteristics does not exist with all the members of a flock, even when a larger proportion of them have more than fulfilled expectations. That is, it may require several years of careful selection before the ability of prolific hens to reproduce in their progeny their own excellent qualities will be inherent. Every farmer, however, should be an experimenter, and endeavor to secure and perpetuate a strain of prolific layers. A beginning should be made by producing hens from some well-known flock of laying hens, or from some reliable breeder, using hardy birds, and breeding from them. A loss of valuable time may result at first, but it will be less costly than expending a large sum for hens, only to be compelled to destroy them. The individuality of the hens is too seldom considered. Poultrymen look to the breeds, the flocks, and the broods, instead of studying the characteristics of individuals. They feed all alike, and expect all to be thrifty. They should realize that some fowls are valuable while others are not, and should persistently destroy the weaker, as the damage and loss will prove but a small item compared to the gain in profit and the saving of expenses in favor of the strong, vigorous, hardy birds that may be the result of patient and careful selection of the best each year.

P. H. Jacobs.

Have you ever noticed how much better a dish of food tastes when it is properly served—neat, clean and inviting? Just look over the advertising columns of FARM AND FIRESIDE this issue and see how many tempting dishes are offered you—and they are all right, too. We guarantee that our people are served with the best—and no other kind. Offers which advertisers make in these columns are genuine. Always mention FARM AND FIRESIDE when writing to them.

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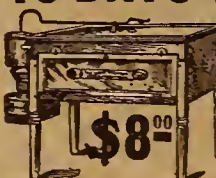
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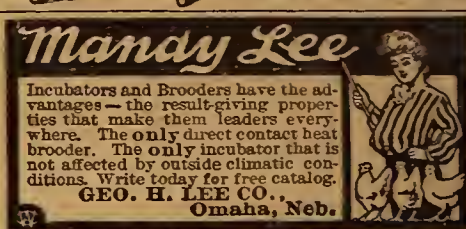


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IN LOOKING over the notes made during my trip around the world, I find here and there little items of compelling interest which I could not include in the articles from the various countries. Believing that these stray bits of fact and fancy will prove interesting to the reader, I will devote the last instalments of my series to what a discerning editor has called an "odds and ends story."

Some people imagine that when we annexed the Hawaiian Islands we merely took into our national family a lot of uncouth savages. It is not generally known that Hawaii has a gentleman's club which has had its doors open for more than fifty years, and a college which recently held its sixtieth anniversary. In the early days of the Pacific coast children were sent from there to Hawaii to be educated; in fact, the first governor of California was a graduate from the college in Honolulu.

Bathing parties are a distinctive feature of the social life in Honolulu, and strangers are treated to the novel sight of seeing servants in bathing costume passing around light drinks and eatables to the submerged swimmers.

The cherry-blossom season is such an important time in Japan that the newspapers issue bulletins announcing the condition of the buds, and all classes eagerly await their opening. This is because the blooming of the cherry trees inaugurates the festival period in Japan.

The Japanese manner of offering prayer resembles a game of chance. One way to test your strength with the gods is to buy a piece of prayer paper, chew it into a wad, then throw it against a wire screen. If the wad sticks you have made good with the deity, but if it falls off you are to consider yourself refused.

The Japanese lover has an odd way of securing a tip on the stability of his sweetheart's affection. When the Oriental swain decides to test the sincerity of his lady love he buys a piece of prayer paper, and attempts to tie it into a knot, using only the thumb and little finger of his right hand. If he succeeds he has a fighting chance to win her, but if he fails, by touching the sacred paper with his palm or fingers, his case is hopeless, and he might as well look elsewhere for steady company.

The characters of the Japanese language are the same as the Chinese, but they are pronounced differently. Consequently the Jap and the Chink can write to each other and get along all right, but they can never have the satisfaction of talking things over in an understanding way.

Wages are very low in Japan. The average pay of the eight thousand clerks in the employ of the government in various parts of the country is only fifty cents a day. This is quite a contrast to the fat jobs our politicians hand around among their friends. Carpenters' wages range from thirty to forty-five cents a day. Girls who work in factories are paid only five or six cents a day—not enough to keep the average American girl in chewing gum.

In fighting disease in the Philippines the American authorities have had to cope with many forms of absurd superstition. Heretofore the natives depended upon quacks to cure them of all their ills. When a member of a family becomes ill a quack is called in, and he begins investigations by inquiring where the patient was when first afflicted, and what he was doing at the time. The bogus doctor thus pretends to determine the character of the spirit which infests the invalid, as well as the nature of the ailment. Should the sufferer have been at work out of doors, an animal will be ordered killed, and its uncooked head will be left on a platter in the field to appease the anger of the spirit which provoked the trouble.

Manila now has the finest street-car system in Asia. All the work of laying the tracks and constructing the entire system was performed with native labor which had never seen any such material before. The problem of securing operators was solved by finding a number of army men who had been motormen in the United States. They drilled the raw recruits until they were competent to take the cars out on the line, and over a million passengers are being hauled every month.

It is a fact not generally known that the oldest school under the American flag is located in the Philippines. What is now the University of Santo Tomas was organized in Manila by Dominican friars in the year 1611, and members of that order are still in control. The oldest college in the United States is Harvard,

Notes from a Traveler's Diary

By Frederic J. Haskin

which was opened in 1636. William and Mary College in Virginia was organized in 1693, while Yale was founded in 1701.

A novel feature of the educational exhibit at St. Louis which is bearing splendid results was the distributing of letters written by Filipino pupils to boys and girls in the United States, Canada, England and other English-speaking countries. These were given to teachers who

miles. In this province are sixty thousand savages who speak ten different languages, yet the total white population consists of only thirteen Americans. These exiles are the governor and his secretary, two constabulary officers, three school teachers, one customs inspector, and three discharged soldiers who have embarked in the lumber business. The only white women in the province are the wives of the governor and customs



A WEDDING CEREMONY IN CEYLON

visited the fair for circulation among their pupils. A register was kept of all parties to whom letters were given, and at the close of the exhibition this book contained thirteen thousand names. The correspondence going on between English-speaking children and their little brown brothers across the ocean is both a stimulus to the use of proper English and an exchange of valuable information.

The province of Paragua is the most isolated portion of the Philippine archipelago. It consists of a zone containing two hundred small islands, the total land area of which is six thousand square

inspector, and these two ladies live one hundred and fifty miles apart.

The Chinese are from necessity the most economical people on earth. The laborer never oils his wheelbarrow, because he can better afford to put up with its squeak rather than spend a penny for oil. In stores and factories the proprietor often economizes on his light bill by making one lamp illuminate two rooms, which is accomplished by placing it in a hole in the dividing wall.

An instance of the suspicion which the Chinese have for each other was afforded

by the death of a member of the municipal government in a small town in China. There were twelve men on the town board, and they kept the money and papers of the municipality in a big safe which was locked with twelve padlocks. Each member of the board held a key to one of the locks, so that the safe could not be opened unless all twelve of the aldermen were present. The affairs of the municipality were demoralized when one of the board died suddenly, because his key could not be found. Even if it had been located, no man would have taken his place unless properly elected, for fear the deceased would be jealous.

Chinese doctors make a specialty of feeling the pulse. There is a book entitled "The Eighty-One Difficulties" which deals exclusively with this subject. Unless the doctor feels the patient's pulse for several hours the latter considers that his adviser is slighting the case. I was told of an old practitioner who fell asleep while holding the wrist of an invalid, and when the doctor awoke his patient was dead.

The national sport of the Malays is matching pugnacious little fishes called karin. These tiny warriors are so vicious that when two of them are pitted against each other they will fight to the death. Great interest is displayed in a match of this kind, bets being freely laid on the outcome.

The marriage ceremony in Ceylon is an exceptional procedure. It is not good for the bride to go forth from her home when she is to be joined, neither is it fit for the ceremony to be performed without the atmosphere of the temple. Consequently a reproduction of the holy edifice is built against the family residence. When the bride and groom appear before the priest he ties their thumbs together with a shoe string, sprinkles them with holy water, after which they are man and wife.

A physician who was summoned to the harem of one of the rajahs in India told me he was not permitted to see his patient. She thrust her hand out from behind a screen, and he felt her pulse, and her tongue was presented for his inspection through a slit in a curtain. These precautions were taken because in India it is not proper for a married woman to expose her face to the gaze of other than her lord and master.

One of the strangest races of people in the world are the Parsees of India. They are fire worshippers, and the blaze on the altar of their temple is never allowed to go out. They claim that it has been carried with them on all their pilgrimages through the various lands where they have lived, and that it has been burning constantly for hundreds of years. The men do not smoke, because it is forbidden in their religion to bring fire in contact with anything impure.

A chair on one of the hotel verandas in Cairo, Egypt, is like a reserved seat for a review of a congress of nations. In half an hour representatives of a score of races will pass, babbling in their myriad tongues and flaunting almost every style of garments that men have ever worn. There are old men dressed in the attire of Abraham, scribes with reed pens in their girdles, types of scowling Pharisees, and outcast Jews. A drive in the suburbs is like looking through a book of old Bible prints. One sees the shepherd tending his flocks, and desert chieftains mounted on swaying camels like the Wise Men who journeyed to Bethlehem to see the infant Christ. Straight, graceful women wearing loose gowns and black veils go down to the watering places with earthen jars on their heads, and the stranger wonders if unknowingly he is to pass the way that Joseph and Mary went in their memorable flight from the wrath of Herod.

Some of the rules of taxation in Italy are most unfair. For example, in many communes in the southern part of the country the saddle horse of the landlord is exempt, but no provision is ever made to exclude the peasant's donkey. There is a government tax on salt, and armed guards patrol the length of the sea coast to protect even the water of the ocean from the people, some of whom might make salt by carrying off a bucket of water and allowing it to evaporate.

Did you ever go into a strange store to trade? If so, did you notice how anxious the merchant was to please you if you told him neighbor Jones asked you to come there? FARM AND FIRESIDE is neighbor Jones. The merchants who advertise with us are our friends, and when you want anything of them just say, "Our old friend FARM AND FIRESIDE asked me to trade with you," and see how prompt and courteous he will be.



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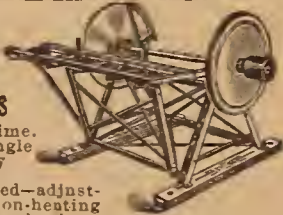
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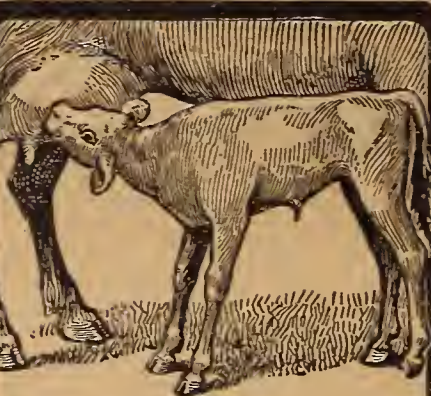
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The Grange

The Value of the Grange to Farmers

EVIDENCE is constantly accumulating, showing not only the value of the Grange as a social organization, but as an educational one, also.

When we take into consideration the progress that has already been made, it is highly encouraging. It is a source of gratification to witness the increasing interest that is being taken in agricultural pursuits.

The founders of the order of Patrons of Husbandry early recognized the principle, that it is not sufficient that the farmer should simply have a common school education, but such a one as would fit him not only to become a better farmer and a more useful citizen, but a legislator whenever occasion required his services in the legislative halls of his state or nation.

The founders of the Order made the educational feature the leading one—for it is the only foundation upon which a superstructure of this kind could be reared, that would be of permanent and lasting benefit to mankind. It is the principle of universal education of the people that must underlie all healthy progress.

The adoption of the educational feature of the Grange, in connection with its social tendencies, has infused new energy into farm life, and has awakened agriculturists to the importance of putting forth every effort in their power to abridge labor and render it more productive than heretofore, so that farm life would become more attractive from a business, social and intellectual standpoint.

W. M. KING.

Organization

The time has long since passed when it is necessary to argue in favor of organization. Nor does one have to present arguments in favor of the Grange as the organization with which farmers should affiliate. So far so good. There is not a farming community in the country but is convinced. The next step is for some public-spirited man or woman in each community to gather together the sentiment and organize it into a Grange. This is not so difficult a matter. The principal objection met will be that that particular community will not be able to have good Grange meetings. Why not? Will it confess to less intelligence, less public spirit, less desire that it becomes a model community through developing its latent ability?

Communities realize that there must be some organization through which they can work for self-betterment. This is exemplified in civic societies, societies for promotion of public utilities, public beauty, better schools, better roads, and various other specific enterprises. The main point is that whenever a proposition is up for the betterment of a locality, the first suggestion is that the interested parties shall organize. Why not come together in a permanent organization that will place you in power to work for county, state and national matters at the same time that you work for local? It will take no more time or money, and it will multiply many fold the efficiency of an individual and a locality. It is a reflection on the intelligence and judgment of a people that they permit policies detrimental to the general good to grow. They are preventable. In fact, they are to the body politic what a carbuncle is to the human organization. It is easier to prevent them than endure them. Organize a Grange and look after the best interests of your county, state and country.

Town and city boards of trade are organized to build up the place, draw public enterprises thereto, and make the locality an ideal one in which to own property, conduct a business and bring up a family of children. A friendly but spirited rivalry exists between communities to outdo the others in civic improvements. Let country communities organize granges for the same purposes. Let them go a step farther and co-operate with the boards of trade in developing the resources of the communities.

Ohio School Improvement Federation

Several years ago there came into existence an organization to look after the educational interests of the state. Its purposes were so lofty, its methods so practical, and its plan so simple, that it at once commended itself to those interested in higher educational standards and the realization of ideals. A little later sixteen of the educational associa-

tions united in the Allied Educational Associations of Ohio. These associations meet annually the last week of December in Columbus. It is the great event of the year in the educational field.

Superintendent S. K. Mardis, of Toronto, is the father of the Federation, and has been at its head since its inception. It has secured some of the best legislation in the last half century, and has advanced educational standards more in six years than were obtained in the fifty preceding ones. Its especial interest is with the rural schools. The meetings of the pioneers in this splendid work are men and women of high ideals, unselfish, altruistic, practical in their methods of getting results. It was this organization that secured the law removing election of members of school boards from partisan politics, extending state aid to weak districts, and the minimum salary law of forty dollars a month



MAJOR W. M. KING OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

for teachers. It favors professional training for teachers, requiring after 1912 a high-school certificate, with at least one year's training for teachers in normal or training schools, or one year's experience as a teacher; mandatory county supervision with optional township supervision; the harmonizing of the truancy and child labor laws that the desideratum shall be the education of the child, not its labor; payment of school-board members in rural districts two dollars and fifty cents a meeting, not to exceed twelve meetings a year; the enlargement of the sphere of the national Bureau of Education that educational experiment stations be established under control of experts, to determine best courses of study, and methods that will result in better conditions for children; recommends a state bureau of high-school inspection, under direction of the State School Commissioner; the extension of term of said commissioner, the tenure of office to depend on efficiency, not political greed for office; the adoption of the Grange platform on taxation as outlined by Mr. Derthick; a uniform course of study for rural schools; urge each county teachers' institute to give one session to the discussion of school-administration problems, with special attention to taxation and co-operation with agencies looking to the common good of the state.

The Observatory

It is sometimes seen that employees of the state make great professions of neutrality when a question of right or wrong is up for discussion, shaking their heads, and saying, "My position will not let me take part." But let the question affecting their salaries be raised, and they rend the heavens with their efforts.

Patrons will regret to know that the sister of Mrs. Westgate, wife of Past Master Westgate, of Kansas, died during Kansas State Grange. She left a family of nine children. Mrs. Westgate is a native of England, and she and her sister were the only members of the family in this country. Her father had just crossed the ocean to visit them.

Mary E. Lee

The Farmer in the Pacific Northwest

The Marvelous Progress of the Great Agricultural Interests in the Inland Empire

By Waldon Fawcett

THERE is not in the entire United States any more attractive farming country than is to be found in the Pacific Northwest—the states of Oregon, Washington and Idaho—and there is assuredly no section where a high degree of prosperity obtains among a larger proportion of the farmers. Many of the external evidences of general satisfactory conditions, such as new barns, improved farm machinery, etc., now to be seen on every hand in this agricultural domain, are, however, of comparatively recent origin, and it is, after all, only the visitor who can compare present conditions with those of a few years ago who is really in a position to appreciate the marvelous progress which has been made by agricultural interests in this corner of the republic.

The Yankee from the country east of the Mississippi, whose conception of the West is a mixture of prairie and desert, is treated to a genuine surprise when he visits the Pacific Northwest. He finds some tracts of land, to be sure, which fit in with his preconceived ideas, but he also discovers vast areas of fertile rolling country with just such green fields and orchards as he has been accustomed to in Ohio, Indiana, Illinois and Iowa. He is likely to find yet another cause for surprise in the lessening number of big ranches or bonanza farms.

The giant farms are neither so large nor so numerous in the Pacific Northwest as they are in Texas, Oklahoma, California and certain other portions of the West, and such as do exist are rapidly feeling the influence of changing conditions. Land throughout this portion of the country has increased in value very rapidly during the past few years, and is falling into the hands of experienced farmers from the Middle West, who are accustomed to high cultivation and careful management. With the increase in the value of the land it becomes necessary to secure the maximum production, in order that the land may return a fair percentage of profit on the investment, and accordingly an era of diversified farming is dawning.

The soil of Oregon, Washington and Idaho is volcanic in origin—disintegrated lava or basalt—and the farmer who has investigated the scientific side of his occupation will understand what this means. Scattered throughout a large portion of this entire region are fertile valleys and plateaus where the soil appears to be practically inexhaustible. The soil in the valleys is a dark, rich loam with a subsoil of clay. In the great wheat-growing territory of eastern Washington, eastern Oregon and northern Idaho there exists a clay loam, slightly lighter in color on the hills, which is exceedingly easy to work, and when in proper condition makes an excellent seed bed.

The Pacific Northwest has two distinct kinds of climate, but neither is what might be expected when we take into consideration that the region is in the same latitude as Labrador. The Cascade Range of mountains, which traverse the region from north to south at a distance of one hundred to one hundred and fifty miles from the shore of the Pacific Ocean, constitute the dividing line between the two climatic zones.

In the country west of the Cascades the year is divided into two seasons—the rainy and the dry. The summers are almost rainless, the days being bright and sunny, while the nights are so cool that there is usually need for blankets. The so-called rainy season commences in November and continues until April. An abundance of rain falls during this period, but it is very gradual—much in the nature of a prolonged drizzle, and thunderstorms are unknown. Indeed, the amount of precipitation during a week of this mild rain would not equal the volume of a single downpour in the Middle West or Eastern states. East of the Cascade Mountains the winters are more rigorous and the summers are warmer, although the farmer usually has the boon of cool nights even in midsummer.

Much of the fame of the Pacific Northwest rests upon its record as a wheat-producing territory. In no other section in the entire world are such results obtained in grain growing as in that vast region known as the "Inland Empire" located east of the Cascade Mountains. Here the capacity of the soil for moisture is so great that nearly all the rainfall

penetrates into it immediately. However, though the surface portion of the soil becomes saturated with moisture, the deeper soil does not readily absorb

the water, and this moisture being available for the crops in the spring and early summer makes possible the enormous crops of grain for which the territory is

noted. The stability of this soil is well illustrated by the experience of a farmer near Waitsburg, Washington, who has cultivated his farm continuously since 1863. He has never raised less than thirty-five bushels of wheat to the acre, and in some years the yield has gone as high as fifty-five bushels to the acre.

In the Inland Empire the large farm, or ranch, as the Westerner is wont to call it, predominates over the small farm, and at harvest time the scene of one of these great grain-growing properties is calculated to astonish the Eastern farmer. On most of the larger farms where the character of the land will permit it, there are employed the combination harvesters drawn by traction engines, and which in one operation, as it were, cut the standing grain, thrash it, throw the straw into a receiver at the back, and after cleaning the grain, pour it into sacks, which are sewed up by men riding inside the machine. One of these harvesters will cut, thrash, reclean and sack the grain from sixty-five to one hundred and fifty acres a day at an operating expense not exceeding fifty cents an acre.

The traction-engine-harvester outfit requires a reasonably level area for its successful operation, and consequently the wheat raisers in the more hilly districts employ combination machines which instead of having steam motive power are drawn by from twenty-four to forty horses. This type of apparatus cannot, of course, accomplish as much as the steam-power equipment, about fifty acres a day being the limit of capacity; but fewer men are required for its operation, and consequently the cost is reduced. With this equipment wheat can be cut, thrashed and sacked at a total expense of less than one cent a bushel. Many of the more progressive farmers in the Pacific Northwest are now employing the traction engine in connection with plowing and seeding operations—an apparatus that plows and seeds a strip thirty feet wide and covers fifty acres a day.

The grain grower in the Pacific Northwest sacks all his wheat, using sacks of two-bushels capacity. He does not make use of private or co-operative elevators to any great extent, as do many of the farmers in the Southwest, but sells direct to a warehouse company. He thus receives in a lump sum the proceeds for his season's crop, and there are instances where warehouse companies located at Colfax and Walla Walla, Washington, have drawn checks to the order of individual farmers for sums ranging from twenty-five thousand to forty-five thousand dollars for wheat delivered in a single season.

The farmer in the Pacific Northwest has few worries as to his supply of grasses and forage plants. While clovers do well in certain sections of the country, alfalfa is the great all-around standby. As most of our readers are doubtless aware, alfalfa is a perennial plant, and produces on irrigated ground four good crops a year, with a total yield to the acre of at least five tons, whereas a yield of seven or eight tons is nothing unusual. The hay is fed to growing stock and to fattening stock, and naturally this resource has had an encouraging influence upon dairying and stock raising. Enthusiasts declare that Oregon and Washington will yet displace New York as the greatest dairying district in the country, and it must be admitted that the estimate of twenty-five dollars as the cost of keeping a cow for one year in the Northwest is a very low one. Every year finds more farmers going in for stock raising, and the field would seem to be inviting, for the north Pacific Coast does not at present begin to supply its own demand for beef and pork, hundreds of carloads of dressed meat from the Eastern packing houses being shipped into this territory every year. Sheep raising, however, is carried on on a very extensive scale in the Inland Empire.

It must be conceded, however, that the present is not an opportune time for a new-comer to engage in stock raising on a small scale in eastern Oregon and Washington. As a result of the passage of laws restricting the running at large of stock, and the steady encroachment of the big stockmen and ranchers, the small stock owners have felt themselves crowded to the wall, and have been obliged to combine with one another in

[CONCLUDED ON PAGE 17]



REAPING THE GOLDEN GRAIN IN EASTERN WASHINGTON



EXTERMINATING THE JACK-RABBIT PEST IN EASTERN OREGON



USE OF TRACTION ENGINE IN SEEDING



FARM IN THE COLUMBIA RIVER VALLEY, STEVENS COUNTY, WASHINGTON

Synopsis of Previous Chapters

"An old lady going abroad wishes a young woman to act as traveling companion; must not be over twenty-five, and be able to speak French."

Helen Mortimer, a poor New York girl, gets the position. Mrs. Harold Pancoast, her employer, entrusts her with a small steamer trunk, the contents of which are of great and mysterious value. Mrs. Pancoast fails to put in an appearance, and Helen sails alone. Helen makes the acquaintance of Mrs. and Miss Watson, the latter of whom absorbs much of the attention of one Guy Halifax. A George R. Barrington forces his attentions on Helen, and Worrendale, another character, seems to be in league with Barrington. A telegram containing a London address is stolen from Helen's stateroom by Madame Patrie. Charles Lawson, a spendthrift, introduces himself to Helen. Halifax helps Helen to the train, and then leaves to look after the Watsons. Barrington took the same coach, and when Victoria was reached, he helped Helen to a carriage and asked for her trunk check. Helen, suspicious, insisted that he leave his grip and coat in the cab. He did not return, so Helen, in desperation, directed the cab-driver to the address Halifax had given her, and started alone and without the trunk. In the coat that Barrington left Helen finds the stolen telegram. Helen cables Mrs. Pancoast that the trunk had been stolen, and she gets instructions that her employer had sailed. A man named Black attempts to recover Barrington's papers by entering Helen's room in the dead of night. Helen frustrates his plans by wildly firing a revolver and arousing the whole house. Helen gets notice to vacate her room. She starts out in a London fog in search of another stopping place, and is kidnapped by Black. She escapes from the cab, gets lost in the fog, and enters a men's club where she is rudely handled. Worrendale unexpectedly rescues her. They encounter Black as they are leaving the den of vice, and Helen is soon a prisoner in the home of Mrs. Morris, alias Madame Patrie, where they vainly endeavor to locate Barrington's papers. Helen outwits them and is released. She learns Mrs. Pancoast is in London. At the boarding house a Mrs. Featherstone takes a liking to Helen and shows her about the city. Helen fears she is being spied upon by detectives, and her life becomes miserable. Helen goes to Paris as an amanuensis of Madame Durozzi, or Mrs. Featherstone, as she is known in London. Lawson proceeds to show Helen life in Paris, and their engagement results. Lord Haldon, father of Halifax, dies, and the son succeeds to his title and estates. Ethel Watson encounters Helen at Madame Durozzi's studio and gets a cold reception. Madame D. loses confidence in Helen and discharges her. Lawson's wicked character dawns on Helen and the engagement is broken. Mrs. Pancoast arrives in Paris. Valuable jeweled necklaces that Lawson had given Helen and which she intended to return are mysteriously stolen.

BUT soon enough I was forced to realize the truth, they had been taken, stolen! and there was no way by which I could ever take steps to trace the thief, since I was to leave there next morning. Go away, and have Lawson believe me base enough to have carried them off with me!

"Think what this means, girls, after his contemptible treatment of me! Oh, I felt I should rather die than submit to such humiliation! But one doesn't die from these things, however bitter they are, and, after all, it is perhaps weak to wish to, for what does anything matter? The years must be gone through with and when they are over, what are we? Dust, scattered to the winds!"

"But I couldn't philosophize then. I took everything, piece by piece, out of the desk, and hunted in every corner. All my letters had been opened, and left out of their envelopes, and the little leather bag containing the remnant of my money was gone. This in itself would have been blow enough, without the other; but coming in addition it made scarcely any effect upon me, although I had only ten francs or so in my purse, and the hundred and fifteen that Madame D. had given me as my three weeks' salary. "I examined the lock of the desk to see if it had been forced in any way, and on turning the bolt out I saw it was very much scraped, as though a sharp blade had been pressed against it. My scissors were lying on the top of the desk, and they might have been employed in opening it. I closed and locked it, then tried with a blade of the scissors, by inserting it in the top crevice, and pressing it hard against the lock, to force it down. It responded almost immediately, slipping down under my pressure as easily as though it were turned with a key. The feat could have been accomplished by the thief, and the desk rifled, in less than five minutes; and as both Madame D. and I were out from half-past five until after seven, the servants had had plenty of time and opportunity to do it without fear of detection. Marie, the chambermaid, was the one who had brought me the package when it came from the jeweler's, and had seen me sign for it. She had also come in upon me one morning while I had the necklaces out on the desk.

"But even if I had absolute proof of her guilt, what could it avail me then, situated as I was?"

"While I was sitting before the desk thinking of this, I heard Madame D.'s key in the door, and determining to appeal to her for aid, I went out to meet her, and found she had brought three friends back with her to play cards, which she usually does Saturday evenings.

"Nevertheless I approached her, and said, 'Madame Durozzi may I speak to you a moment?'"

"She looked at me coldly, and replied, 'I don't think we can have anything to say to one another, Miss Mortimer. All is settled between us, and you see I have company at present.'"

"But this is urgent!" I exclaimed tactlessly. "A thief has been in my room, and something must be done!"

"I was so unnerved I did not realize how foolish it was to introduce the subject in this way, which of course was the most idiotic thing I could have done.

"She drew herself up and looked at me with freezing contempt.

"Mademoiselle," she said, "I beg you will not reward my leniency in allowing you to remain here to-night by subjecting my household to any such insult!"

"But, Madame, I don't intend any rudeness," I ventured as calmly as I could. "If you will come into my room you will see!"

The Strange Adventure of Helen Mortimer

By Maude Roosevelt

The desk has been opened, and three valuable necklaces taken from it.

"A ruse!" whispered one of her companions in French. "These Americans will stop at nothing!"

"But Madame D. swept past me, and entered my room. I followed her to the desk, showed her how it had been opened, and explained what had been taken.

"And do you mean to insinuate that my servants have done it?" she asked, her voice deep with suppressed rage.

"I don't insinuate anything," I returned, "I leave it to you. Surely no one out of the apartment could have done it, and you can see that they are gone."

"I see that you have taken them from their cases to serve some end of your own!" she said slowly, fixing her eyes upon me with a look that was awful to meet. "My servants have given me more proof of their honesty than you have, and I shall permit no such suspicion to be thrown upon them. You may get ready now to go where you will; you shall not remain under my roof to-night!"

"I could only gaze back at her in dumb-founded silence; it was too awful to be met with such cruelty, in the very face of my misfortune!"

"I shall give you twenty minutes to get ready," she continued in that cold, even voice which indicated the uncontrollable and pitiless temper I have always suspected existed back of her calm self-poise. "There will be a cab at the door. If you are not ready then, your things will be taken out as they are."

"I couldn't reply, for there was nothing to say to such brutality; at any rate, I could think of nothing. I felt as though stunned by a blow, and when she left me, sank helplessly into a chair, forgetting the limited time she had given me, dazed beyond thought and feeling.

"Presently the maid knocked at the open door, and entered.

"Madame sent me to see if I can help you, Mademoiselle," she said. But I made no reply, and she set to work with what I recalled later as suspicious haste, to get my things packed, though at the moment I did not notice it.

"She brought me my hat and coat, and I put them on like one in a trance; and a few moments later I was following her down the stairway to the street entrance, where a cab was waiting.

"The maid put my bags in after me, then asked where she should direct the coachman.

"As I knew of no place to go, I hesitated, and in that moment an insane impulse came to go to Charles Lawson and throw myself on his mercy, for the backbone of my spirit was broken, and as to what the consequences might be of such a move I was quite indifferent. The thing I feared the most was loneliness, for I was in no mood to be alone.

"Then, like a gleam of light upon my mind's dark despair, came the memory of Mrs. Pancoast's note, and I directed the man to take me to the Hotel de Havre.

"It was a long drive, and the soothing motion, with the cold air blowing in upon

me from the open window, served to revive me, and I gradually became calmer and more capable of reasoning.

"It seemed then that I had succumbed too easily, that I should have made a fight for justice and obliged Madame D. to make some investigation concerning the jewels. And yet what could I do in the face of such stony and pitiless resentment as she had evinced? Any attempt to oppose her would have only led to my being ejected by force from the apartment, and as I had no friend to turn to, and knew nothing of the French law, it would have availed me nothing.

"As I considered Madame Durozzi's intolerance, and the maid's breathless haste to get me away, it appeared suspiciously significant. For all I knew, Madame D. herself may have been implicated in the theft. Of course, this idea was probably absurd, and yet those Italians are supposed to have thieving in their blood.

"On arriving at the hotel, I found that Mrs. Pancoast was out, and they did not know when she would return. I engaged a small hall room, and told them to let her know as soon as she came back that I was here. Then I came up to my room and have been writing this ever since, glad of the occupation which has kept me from thinking, for I can tell you thought terrifies me at present!

"It is now three A. M., and as no word has come from Mrs. Pancoast, I am going to bed, and shall write more to-morrow, if I have a moment free.

"October.

"This is the first free hour I have had, girls, since the night I left Madame D.'s, but I shall tell you all that has happened to the smallest detail.

"The next morning I rang for coffee at half-past nine, and asked the maid to find out if my message had been given to Mrs. Pancoast. She returned to say that Mrs. P. had come in so late the man I had given the message to did not see her, so I dressed quickly and sent her a line on my card. A few moments later I was asked to please go to her room; and, my dears, I went without the slightest tremor of fear, for to be alone at the mercy of my unhappy thoughts held more terror for me than anything threatened by an interview with her. I simply dared not think! Although I now despise Charles Lawson, the sudden shattering of all that had given new hope and promise to my life has left an aching vacuum.

"I found Mrs. Pancoast sitting up in bed, with a lot of letters and papers scattered about her. She looked older and thinner, her beautiful hair hung loosely over her shoulders, and she had on a pale blue silk dressing sack which was very becoming. "I expected her to greet me with insulting coldness, and had nerved myself to meet it, but instead she said quite nicely, 'How are you, Miss Mortimer? Close the door and lock it, please, then sit here by the bed.'"

"Even then I was prepared for something horrible, and locked the door, fully persuaded that she had asked me to do so in order to have me more at her mercy.

"Sit here," she said, designating a chair

near her, 'and tell me everything. I am glad you came early, for I have lost so much time, that every hour counts now against me.'

"I was astonished by her calmness, which made it more difficult to tell her about the trunk, as she evidently thought it was still safe in my possession, and I did not know how to broach the subject; so I said, to gain time, 'I was so sorry to be out when you came yesterday; if you had telegraphed me—'

"When I came where?" she interrupted, looking at me, evidently puzzled.

"When you came to see me yesterday afternoon," I replied. "Of course, I should not have been out if I had known."

"I did not go to see you yesterday," she said. "I only arrived in Paris when I sent you that note."

"I stared at her in amazement. 'You mean to say you did not call at Madame Durozzi's apartment?' I asked.

"I certainly did not," she returned. "Why, who said that I did?"

"I could not reply at once, for the truth of the whole situation swept over me like a flash—that woman, whoever she was, had entered my room, opened the desk in search for something else, and had taken the necklaces!"

"What do you mean?" asked Mrs. Pancoast with some impatience. "Explain yourself."

"Some woman came and gave your name, I said dully, still following my own thoughts. 'She waited an hour there, and must have gone into my room, for I found the desk had been opened and some things of value, that did not belong to me, taken.'

"She gave my name?"

"Yes, she gave your name to the maid. For this reason I never connected her with the theft."

"We gazed at one another for some seconds in speechless amazement, then Mrs. P. said, 'Are you sure the maid was not giving the name at your suggestion.' And I told her how she had repeated it after me. She then sat thinking, before saying slowly:

"I can't understand it. Who would know that name? Unless—tell me how that telegram I sent you to the ship was stolen. Why did you not destroy it, as I asked you?"

"You know about it, and the trunk!" I exclaimed, scarcely able to believe it could be so.

"Yes. Mr. Ridgway cabled me; I have been searching for you ever since I arrived in London. He gave me your address in Oakley Street. I went there, but they could not even tell me where you had moved to. At Princes Square they had never heard of you. I found my cable to you there, and if it were not that you had cabled Ridgway, I should have believed you had played me false."

"I know," I returned, "it was only natural you should think that, but when you hear all that has occurred, you will see that my hands were tied. The only particular I have not been faithful in, to the best of my ability, was not to have destroyed that telegram, as you told me; but I kept it to copy the address you gave in it, and every day it slipped my mind, until it was too late! However, even if I had copied the address at once, and destroyed the telegram, I would only have had the advantage, probably, of being able to meet you on your arrival in London. It wouldn't have saved the trunk, for I have been pursued ever since I left New York by that Barrington and his colleagues."

[CONTINUED ON PAGE 33]



"I locked the door, fully persuaded that she had asked me to do so in order to have me more at her mercy."

The Farmer in the Pacific Northwest

[CONTINUED FROM PAGE 15]

a common effort to hold their own. Aside from the problems that arise from the leasing of state land and the placing of great tracts of it under fence to the exclusion of the "free-lance" stockmen, "rustlers" are still more or less of a pest in the Northwest, and there is frequent recurrence of the feuds which seem bound to break out whenever cattlemen and sheep raisers dispute possession of the open range.

In the Pacific Northwest almost every farmer has his own orchard and berry patch, but there is also a large contingent of the farming population that is engaged in fruit culture exclusively. The famous Hood River Valley is the pride of the Northwest as a fruit-growing paradise. Just imagine a garden spot nine miles wide and thirty miles long that yielded in a single season one hundred and fifty thousand crates of strawberries that sold for one hundred and fifty thousand dollars, and on top of that yielded an apple crop of one hundred thousand boxes that put one hundred and twenty-five thousand dollars into the pockets of the growers.

In this wonderful region, where land sells as high as two hundred and fifty dollars an acre, the farms are usually small tracts—for five or ten acres rightly cultivated will make a man independent—but there are some large holdings. However, when a tiller of the soil can realize from five hundred dollars to eight hundred dollars an acre each year on apples alone he can rest content with a modest one-man farm. The carrying and keeping qualities of Oregon apples, which enable them to be sold in London, St. Petersburg, China, New Zealand and Alaska, and the wonderful preservative qualities of Hood River strawberries, which enable them to be shipped either in refrigerator cars or by open express to Chicago, and even to New York and Boston, allow the Northwestern fruit growers to be indifferent as to the distance they are from some of the principal markets.

One of the principal products of the territory between the Cascade Mountains and the Pacific is hops, though the outside world hears comparatively little of this source of wealth from the soil. Nevertheless, the Willamette Valley—the center of hop culture—produces nearly one half of all the hops grown in the United States, more than twenty thousand acres being given over to the vines. Farms in the "hop belt" usually sell at from twenty-five dollars to one hundred dollars an acre, a price of fifty dollars an acre being, probably, a fair average, and many of the fields average at least twelve hundred pounds to the acre year after year, which means a net return of more than two hundred dollars an acre. The failure of a crop has been almost unknown since hop raising was inaugurated twenty-six years ago.

From what has been said regarding the Pacific Northwest as a fruit country it may readily be imagined that there is nothing lacking in the quality of the vegetables produced in this favored section. West of the mountains, where there is a mild climate with plenty of moisture, the ground can be worked at all seasons of the year, and this corner of the United States rivals tidewater Virginia and eastern Maryland as an ideal locality for truck gardening. The visitor will hear on all sides stories of net profits of two hundred to three hundred dollars an acre from land devoted to tomatoes, onions, celery, lettuce, potatoes and other varieties of garden stuff. Not a few of the farmers have given their attention to sugar-beet culture, and at several places in Oregon and Washington large factories have been established which afford a convenient market for the sugar beets.

The farmers of the Pacific Northwest, or the "New Northwest," as it is sometimes designated, live well. Journeying up and down this great stretch of country by rail or wagon road—and, by the way, the country roads are excellent examples of highways—the traveler sees nothing that bears any resemblance to an "abandoned farm." What is more, the properties are all well kept up—buildings adequately painted and the fields well fenced. The farm buildings are much the same in character as one sees in the most prosperous sections of the Middle West, though, save in the case of stock farms, the barns are scarcely as large as are to be found in some other parts of the country. Possibly the explanation is to be found in the fact that the farmer of the Northwest ships his wheat or other products to market directly they are harvested, making no attempt to store more than the needs of his own household demand.

The farm houses of the Northwest are almost invariably of frame construction,

and in architecture they seem to be copies of the homesteads in the agricultural stronghold between the Ohio River and the Great Lakes. However, a point of difference is noticeable in cases where prosperity has in time enabled a farmer to improve upon his original habitation. East of the Mississippi it is often the custom to retain the old house, adding to it or building around it, and this practise sometimes prevails where the original home finally constitutes only a wing of the improved property. In the Northwest,

on the other hand, the farmer whose worldly affairs have prospered is likely to devote his original dwelling to other purposes and to construct an entire new residence.

In all the more thickly settled portions of the Pacific Northwest the farmers enjoy the benefits of rural free delivery, and rural telephone systems are also gaining a foothold. This section of the country, however, is as yet rather deficient in the matter of interurban trolley lines, which, while they may have some

disadvantages, in the end prove a boon to any farming community. Indeed, the whole transportation system in the Northwest is not what the resources and development of the country would seem to warrant, and it may surprise some of our readers to learn that in the state of Oregon there are rich and prosperous farming communities that are one hundred and twenty-five miles from the nearest railroad.

Moreover, all the principal railroad lines tapping the territory have for years past been operated in combination, resulting in all the evils in the matter of rates and service that is to be expected where a monopoly exists. Latterly the farmers and other shippers have finally risen in their wrath and have done a little railroad building on their own hook, and also made arrangements to make greater use of the waterways of the territory as arteries of traffic. They are promised still further relief through the prospective entrance into the field of a new trans-continental railroad system, which is likely to not only afford a new outlet, but also to force the non-progressive railways which have had the country in their grip to make extensions and improvements that ought to have been made years ago.

The farmer in the Pacific Northwest is, it must be admitted, seriously handicapped by heavy freight or express charges if he wishes to purchase any bulky articles in the East; but fortunately for him, the Pacific Slope is rapidly becoming self-sufficient in the luxuries as well as the necessities of life. Farm machinery of all kinds, harness and other essentials are now manufactured on the west coast and laid down at his door at prices as favorable as those prevailing east of the Mississippi.

Just to illustrate the burden of heavy freight rates, however, I may cite the case of a prosperous farmer near Portland who planned to purchase a small gasoline launch for his son. This was to be shipped not from the Atlantic seaboard, mind you, but from a town west of Chicago, and yet the freight charge on this one-hundred-dollar boat would have been sixty dollars. Doubtless the Panama Canal, when it is completed, will, in some measure at least, relieve this strain upon the pocketbooks of buyers in the Northwest.

There are many parts of the West where the farmers are a long distance from a city of any size, and this is likely to prove a disadvantage in one way or another, sooner or later. Nothing of the kind can be urged against the Pacific Northwest, however. Spokane, Portland, Seattle and Tacoma are among the best and most progressive cities in the entire United States, and there is scarcely a farm in this whole region that is not within a day's journey of one or more of these cities. The quartet of busy communities ranging in population from eighty thousand to one hundred and fifty thousand each not only provide home markets that take considerable quantities of the fruit, vegetables and other farm products of the Northwest, but they bring within reach of the farmer's wife and daughter shops where they can purchase anything for household use or in the way of wearing apparel that they would find in any of the large Eastern stores.

In conclusion it should perhaps be noted that the farmers of the Pacific Northwest have not been so busy reaping wealth from their rich region that they have neglected to provide churches and a good school system for their children. The fruit of this policy is shown in statistics that indicate that a much larger proportion of the children in the Northwest can read and write than is the case in some other parts of the country, including intellectual New England. There is at least three months of school each year even in the most sparsely settled districts, and high salaries are paid in order to get good teachers. Both Oregon and Washington have excellent agricultural colleges, where the sons and daughters of farmers are taught to apply the principles of science as an aid in solving the problems of the best cultivation of the soil.

The Pacific Coast farmer does not have the trouble that many of his brethren elsewhere do in finding capable farm hands who are willing to work for reasonable wages. He would have all kinds of difficulties if he had to depend upon white help, but he solves the question by employing Japanese and Chinese. Hundreds of the Orientals—young men, almost without exception—have been for years engaged in farm work in this territory. Their steady-going tendencies, with no inclination for frequent "trips to town," have helped them to gain a foothold in the agricultural field, while their willingness to work fourteen hours a day if occasion demands, causes them to be eagerly sought as harvest hands.



A TWENTY-HORSE HARVESTER IN OPERATION



HARVESTING BY STEAM IN THE INLAND EMPIRE



USING OXEN TO CLEAR LAND IN THE NORTHWEST



JAPANESE FARM HANDS ON THE PACIFIC COAST FARMS

Rafe, The Rubber Gatherer

By Frank H. Sweet

CHAPTER V.

HE WORKED late that night, later even than the night before; yet all the while he knew that his utmost exertions in this way would not meet the new requirements of the overseer. He must think of something different, something that would meet and overcome the seemingly impossible. So he worked and thought, planned and rejected, and all the time was conscious of those despairing eyes in the corner behind the smoke.

When at last, almost discouraged, he gave up work for the night and sought his corner, he seemed as far from success as when he had stood before the overseer in the doorway. Yet scarcely had his head touched the floor when he was upon his feet again, his pulse bounding and his faintness forgotten. It had come to him like a flash.

Juan's hut, as master smoker, was larger than the others, and was well supplied with all the necessities for work—a great heap of palm nuts along one side of the fire, extra earthenware, chimneys in case of accident, and a number of sap sticks of varying lengths.

The roof of the hut was of thatch, with rafters of bamboo placed very close together. By standing upon a hastily constructed pile of blocks of crude rubber, Rafe could reach these.

By this time the smoke had begun to clear somewhat, and the eyes in the corner were watching him curiously. First Rafe fastened three sets of strong cords, two upon the same rafter, and of varying lengths, so that the bottoms of each should be at the same distance from the floor, about three feet. Then he descended from the pile of blocks and placed them out of the way. Near the corner where he slept were a number of iron hooks, sometimes used to catch sharks, which were plentiful in the branch flowing directly behind the hut. It was a sight of these hooks which had been responsible, in part, for his sudden plan.

Selecting six of the same size, he fastened them to the ends of the cords. Then he placed one of the sap sticks across two of the hooks and tested it with his hand. The stick was parallel with the floor, and could be turned by even a slight pressure of his finger, while the cords would allow it to be moved forward and backward with almost equal ease. By this time the eyes in the corner were beginning to understand, and with the wonder in them there was now an unmistakable twinkle of hope. In possession of his limbs, old Juan would have scouted such an innovation, but the case was desperate. He watched Rafe place sap sticks in the other sets of hooks, then stand between two of them, with the third directly in front, and keep the three in almost constant motion. With the cords to bear the weight of the sticks and keep them in position, it would be as easy to look after three as ordinarily it would one. Finally Rafe built a palm nut fire under the end of each stick, placed extra chimneys over the smoldering fires to concentrate the smoke, then dipped the sticks into the sap and replaced them upon the hooks.

When he took a position between the two parallel sticks and began a careful and workmanlike manipulation of the sap in the smoke, there came a sudden thumping upon the floor, the only applause which old Juan could make with his one hand.

The next afternoon, when the overseer returned with men bearing more huge calabashes full of sap, they found those they had brought the day before standing in front of the hut, empty. At sight of them the expression of exulting malice on the overseer's face changed to one of astonished chagrin and suspicion. Pushing open the door, he was about to accuse old Juan of having thrown some of the sap into a branch, when such a black, dense volume of stifling smoke rushed out that he closed the door again hurriedly, gasping and sputtering. Never in all his experience had he seen smoke as thick, or so much of it in the brief space of opening and shutting a door. What sort of work was going on in there that could create such a vol-

cano? Old Juan must be doing the labor of two men, and the boy have become already a veteran smoker. It was inconceivable—unless, perhaps, there was some trick. But no; as his eyes became clear they saw a long pile of rubber behind the empty calabashes, ready to be taken away. He bent over the pieces and examined each one carefully, critically, hopefully, but in vain. Every piece was evenly and properly colored, and bore Juan's mark. And there were more of them than any smoker had ever put outside his hut in that camp in a single day. If the owner saw them, as of course he would, it would never afterward be any use to try to prejudice him against the master smoker. Nothing but Juan's death or disability would leave his hut vacant for a possible successor; and a little later the overseer had an animated conversation at the door of the second smoker's hut, the substance of which was that they should keep their eyes open for any possible slip, but should not at present try to force matters which might work to their own disadvantage. The second smoker was the overseer's brother.

The following day the empty calabashes were outside the hut as before, and behind them was a new pile of rubber. The overseer viewed it discontentedly, and ventured on adding still another calabash of sap to the new supply. But the next day this calabash was also outside with the others, empty. And back of the calabashes was a significant pile of perfectly smoked rubber, larger than ever before.

What did it mean? There was black art at work here somewhere, for no man and boy could accomplish such wonders as this. The other three huts together did not turn out more rubber than this one, and it was not so well smoked. True, old Juan had the best apparatus in camp, and the best hut, and he always insisted that the ripest and dampest nuts should be brought to him—those that made the blackest smoke. But one hut and one fire could not honestly do as much as three huts and three fires, not even though the smoke should be kept pouring through the little chimney all day and all night, and old Juan and the boy took turns in resting and holding the stick. It was nothing less than black art, and the whole camp was in peril.

That very day the overseer placed watchers among the denser foliage about the first smoker's hut, with orders to note everything that went in and came out. Perhaps old Juan's influence brought rubber from somewhere outside, or expert smokers stole in to assist him in doing these wonders. But no. Three days went by, and every day the empty calabashes were found outside and the piles of perfectly smoked rubber; and every day the spies reported that nothing had gone in or out save the men who bore the calabashes of sap into the hut each afternoon and the boy who

opened the door at daylight each morning to place the empty calabashes and the finished rubber outside. And when the calabash bearers themselves were questioned they declared they had seen nothing—that no human eye could pierce the blackness of that foul place. They had shut their eyes and placed the calabashes just inside the door, and then had rushed out as rapidly as possible, thanking the saints that they were still alive in the world, and not in the black hole where all shameless people go.

After that a whole week went by, and the overseer fumed and marveled, and perhaps feared. But at length his anger and curiosity got the better of his prudence—or rather, of his superstition. One morning just before daylight, at the time the boy was in the habit of placing the calabashes and rubber outside, he stole around to the back of the hut, on the river side, and noiselessly cut a hole in the thin wall with his knife. To this he applied his eyes.

What he saw made his face at first grow ashy with terror; then, as he comprehended it, became livid with rage, and his teeth gnashed audibly. But still he looked.

The fires were now low, and the smoke was almost transparent. In the opposite corner sat Juan, his face drawn and ghastly. Evidently the old man had been straining himself to the limit of his strength, and the overseer almost smiled at the thought. But what caused his look of terror, succeeded by rage, was the scene in the center of the hut. Instead of a single fire, there were three, with three chimneys and three sap sticks. And tending them was, as he had half suspected, the evil one himself, in a most horrible disguise. His figure was rather tall and slight, and his face was almost without features save for two black holes and a nose that twisted down and behind his body and then wavered up into the roof of the hut. The overseer's eyes almost bulged from their sockets as they followed the windings of that awful nose. With an effort he turned his gaze back to Juan. The old man was just rising to his feet, tottering as he did so. Yes, truly it was as he had thought, only worse, and he crossed himself hurriedly. Juan was sick and had sold his soul to the evil one for assistance. And the boy—yes, they had killed him to make the fires.

He was about to slip away in horror, when the evil one suddenly removed the front half of his face, and—there stood the boy Rafe. The overseer gasped in amazement, then shut his lips grimly and tried to think—to study out the thing. Presently he decided that the false face was fashioned from rubber, and the nose—yes, that was rubber, too. But for what purpose? Then suddenly he understood. The soft rubber had been fashioned about something round and allowed to cool, then removed and a number of pieces fastened together until the required length was obtained. It was

merely a hollow tube through which the boy could breathe, clumsily made, but serving its purpose. No wonder the boy had been able to endure the black smoke of even three fires.

As Rafe opened the door to place the empty calabashes and the finished rubber outside, he found himself face to face with the overseer. "Br-r-r-rh!" the man screamed, his face convulsed with rage, "I foun' you out! I ketch on yo' treeck, you scamp boy! I goin' feex you! Drap dat calabash! Dat ole Juan's work now. You goin' back in de grove, an' I make you work, a-a-ah! like you nebber work befo' But firs' you goin' feel my steek. An' if ole threeck Juan don' do his work wid sap like I been sen'in', den I goin' write de owner, an' he leabe. He, he! An' he goin' put out two dem fires queeck now."

Old Juan appeared suddenly in the doorway, his tottering form erect. "Stop dat fool talk!" he cried. "De owner ain' goin' take yo' word 'gin' me long's I do my work. You know dat. An' he don' car' how many fires I bu'n long's I do it right. You keep out dar, an' I'll keep in here. I'se willin' do two men work, but don' you fix t'ings too t'ick. If you do, dar goin' be a split, an' it goin' hu't somebody."

He shut the door abruptly, and the overseer stood glaring at it for some moments undecidedly. But he knew the master smoker was right. At last, with a fierce "Br-r-r-rh! I feex you!" he caught Rafe by the shoulder and raised his stick.

CHAPTER VI.

AFTER using the stick until he became exhausted, the overseer turned Rafe over to the camp men as a helper to them—the hardest and most degrading work he could devise, for in effect it was to be slave to them all.

But here again a very curious thing happened. Rafe had gone into the smoke hut hated or disliked by the whole camp, as he had had good reason to believe. He came out a hero to them all, with perhaps the one exception of the overseer.

That night when he had saved the monkey, his story of the snake had been considered a pure invention by all who stood near and heard it, and the overseer's abuse had been thought no more than just. But when they went to the grove the next morning and found the snake lying dead beside the path, his head completely encased in hardened rubber, their feelings underwent a quick change. They had all helped to kill snakes at one time or another, and few of them had killed snakes single-handed; but none had been so large or of so formidable a species as this monster, and not one of them had ever heard of a snake being killed in such a manner—waiting until its head was almost in one's face, and then covering it with rubber sap. Why, it was marvelous; not mere bravery, which any strong man could emulate, but an absolute act of genius, such only as a medicine man or soothsayer or natural leader could think of and wait unflinchingly to perform. And it had been done in the darkness, when things are larger and more terrible and fearsome, and by a boy who had been moving quietly among them.

This change had not found much open expression, through fear of the overseer, but had insensibly strengthened by much repetition among themselves. And it had lost nothing by his temporary absence in the hut. Marvelous things had been going on in that hut, and the camp men ascribed the marvels to the killer of the snake instead of to the master smoker. One who could kill in the darkness a monster that ten men might fear to attack by daylight could easily do the marvels which had been mystifying and exasperating the overseer. It did not matter in the least that he had not learned the smoker's art, that he was only a boy; some things did not come by mere knowledge. It was easy enough for him to do the work of three or four smokers as it would be of ten, were he so minded.



"Then he took a position between the two parallel sticks and began a careful and workmanlike manipulation"

So when the overseer exhausted his wrath upon him and drove him to the men for work, he was surprised at being received with marked deference instead of with blows and abuse. Not one of them had anything for him to do; and when he insisted, they gave him the lightest of the work and made all sorts of pretexts to leave what they were doing and help him. And so it went on all through the day, until early in the evening, when they declared there was nothing else he could do except lie down and go to sleep, and that he had better do it at once, for he looked tired.

In the morning it continued the same, for the men insisted on doing the work, especially the dirty and disagreeable portion. But by this time the overseer had learned what was going on, and hardly had daylight appeared when he approached Rafe with an ugly expression on his face.

"Br-r-rh!" he hissed. "I goin' feex you nex' time, you slip-out boy. Dar' ain' goin' be no frien's, no smoke hole to hide in, no big snake to crawl ahin'. Br-r-rh! No! I goin' skin you, w'ar out de steek till you ain' 'nough lef' to w'ar anyting on, den put you on de ant-hill till ant eat off yo' toe nails. A-a-ah! Yo' ha'r stan' on end if I tell one half I goin' do. An' I do him all right now if I ain' so beesy. Now you go clean out all de calabashes till I be ready; den I feex you, I f-e-e-x you." He was moving away when he seemed to think of another thing that might add terror or anxiety to the boy's mind. His face was turned with a new malignancy. "A-a-ah! I been hear great news dis mornin'," he went on; "de grove an' all de t'ings roun' here been sol' to new man, an' he an' de ol' owner comin' out bimely to look roun'. I goin' to hab everyting feex up nice; an' den, when dey leabe, I goin' be de boss sure 'nough cl'ar t'rou'. An' dat ol' Juan goin' be fire so queeck his haid snap."

Rafe went to the calabashes with a heavy heart. Old Juan to leave, his first friend in the camp? It would break the smoker's heart; and, old and feeble as he was, he could not obtain work elsewhere.

When the calabashes were finished, he was set to clearing away the camp refuse, which had been thrown in the edge of the forest.

While he was there he heard a sudden scream from the path which lead through the forest to the rubber grove. Looking up quickly, he at first saw nothing but a child of three or four years, who had been playing in the path. The child was standing with its hands before its eyes, as though to shut out some object of terror. Then, just beyond, not twenty feet away, he saw a large jaguar already crouching for a spring.

There were twenty people or more who heard the scream, and among them was the overseer. But they were too far away to reach the child in time. Rafe was the nearest.

He did not hesitate an instant. Swinging his arms above his head, he uttered a loud yell of encouragement to the child, and sprang directly toward the jaguar. The spectators held their breath, realizing only too well what must be the end.

But Rafe never paused to consider that, or to make plans. His one thought was of the child, and to get between it and the wild beast. And the jaguar, startled at the very instant before springing by Rafe's yell, hesitated in the face of the strange figure flying toward him; then, as if deciding that such boldness could only indicate superior force, it turned suddenly and bounded away into the forest. Rafe caught the child up in his arms. Not until he reached the open and the overseer took the child from him did he notice that it was the child of the second smoker, the overseer's brother.

"A-a-ah, you slip-roin' boy," began the overseer, "you in plenty much t'ings dat ain' work." Then, as if realizing that this was not quite the right thing to say, he added, "But it all right dis time. Now you go back to dat clean up."

In the afternoon the visitors came—the owner and the former one, a surveyor to verify some lines, a lawyer to look after the papers, and two negroes to attend their horses.

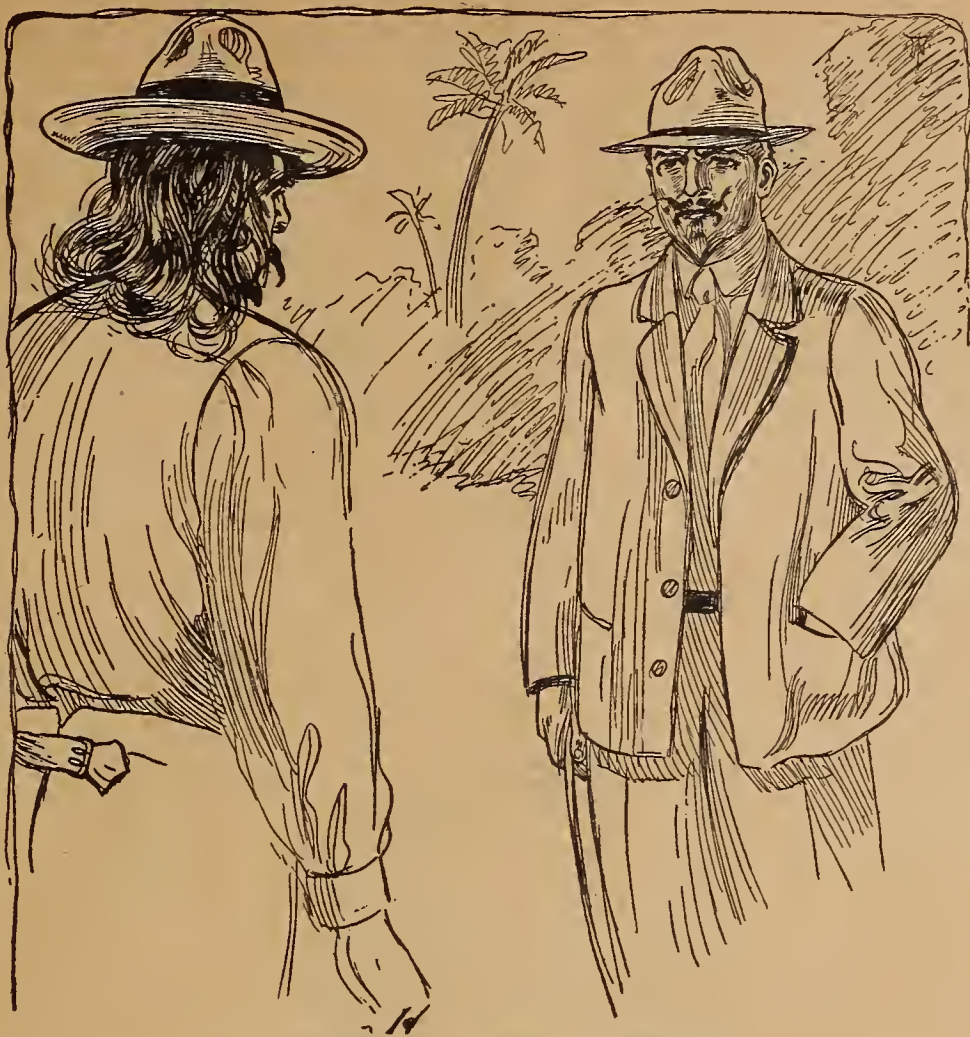
Rafe had not quite finished clearing away the huge pile of camp refuse, and was bending over it, working as rapidly as possible. Not until the group paused quite near him did he look up suddenly, startled. He had recognized one of the voices. Then, "Father! father! Oh, father! Is it you?"

The new owner, a tall, distinguished-looking Spaniard, turned swiftly, stared, then caught the boy in his arms. "Rafael! Rafael!" he sobbed, "I thought you were dead. I wrote your mother and sister so. God is good. The news will be joy to them, my boy. But I do not understand. Why are you here?"

They spoke together rapidly for some minutes. The former owner looked at them curiously, sympathetically. "Is this the son you told me was killed, Don Torrallas?" he at length inquired.

"Yes, I thought he was killed. We came to the lower Amazon to buy rubber land, and one day Rafael took his pony and went into the forest to try a new American gun I had bought him. They never came back. We found some of his clothing, with blood on it, and supposed the wild beasts had killed both him and the pony. I did not care to buy land then, and I did not dare to go home and face his mother without certain information. I have been wandering up and down the Amazon since, but without hope. Lately I learned that the upper Amazon was the best rubber section, and yesterday I arranged to buy this place. But I never anticipated the joy of finding my boy here, alive."

"I was taken by a party of wild-looking



"No, I shall not need you," said Don Torrallas coldly

men that day in the forest," said Rafe, his voice yet tremulous with the joy of the unexpected meeting. "They stole everything I had and were going to kill me; but one of them said no, they could do better by selling or hiring me to some tribe or company in the interior. At last they brought me here, starving and beating me on the way so I would not dare to tell. They had a long talk with the overseer which I did not hear; then they went away. After that I tried to tell the overseer about myself, but he would not listen. He said I was a sly-tongue, a story-maker, and whenever I tried to speak he beat me. I have been here ever since."

As he listened, Don Torrallas' face had been growing dark. The overseer looked anxious. "It was all a mistake," he explained hastily. "I did not know, an' Rafael make too queeck conclusion. We goin' be mighty good frien's now. An' I know all 'bout de rubber bizness, an' can make de men work h-a-r-d. You goin' need me mo' dan all de res'."

"No, I shall not need you," said Don Torrallas coldly. "I intend to employ an altogether different kind of overseer. As soon as you have settled with Senor Guerri here, you may go."

"But—" Don Torrallas turned his back to him. "Now, Rafael," he said, "would you rather go straight home, or stay here with me for a few months, as we first arranged? I wish to get the plantation into as good condition as possible, and intend to buy up all the adjoining land I can that is suitable."

"If you do not mind," replied Rafe eagerly, "I would much rather stay. I have learned a little about rubber-growing, and maybe can help you some. And even if it has been hard, I like it."

"Very well; you will stay then. And I need not add, my boy, that I am very glad. Now go and write a long letter to your mother. Senor Guerri will post it for us. And do not forget to say that we will be home on a visit before very long."

[THE END]

Men Worth While in History

George Washington

THE American people would be unwilling to put the name of any man whomsoever before George Washington's. "First in the hearts of his countrymen" was again verified when his name ranked first of all the names presented for a place in America's Hall of Fame.



You may ask, "Why this charm over the people?" It was not an affable sweetness in his manner that drew all people to him, but rather a grand and commanding appearance that induced them to follow wherever he chose to lead. He possessed a grandeur that was awe inspiring when he stood before them, towering in height above other men. One feels, when portraying the life of this great chief, like a photographer who goes out to photograph the sun; he gets only a shadow of that bright luminary.

All that pertains to his life has been told over and over again by each succeeding generation, and still the story loses none of its interest. Ask the youngest pupils in our schools, "Who is the father of his country?" and see how quickly and distinctly every single one will answer, "George Washington."

The story of the hatchet and cherry tree is familiar in every nursery. The legends of his boyhood—such as the daring skill in riding wild colts, throwing a stone across the Rappahannock River at Fredericksburg, the throwing of a stone from the bottom to the top of the Natural Bridge in Virginia, the excelling of his playmates in running,

leaping and wrestling—are often cited as examples of his superior muscular power.

When six years old he was sent to school to Mr. Hobby, one of his father's tenants, who taught in an "old field schoolhouse." Here all of his amusements took a military turn. He made soldiers of his schoolmates. They had their mimic parades and reviews, and they fought sham battles. It is said that in all their play he had a competitor in William Bustle, but George was commander-in-chief of Hobby's school. These stories, as well as others, continue to delight the youth of our land.

His life from beginning to end was full of wonderful and thrilling incidents. When sixteen years of age he was sent by Lord Fairfax to survey his vast landed estates in Virginia. This was his first experience of life in the wilderness. One day he would cross the river in a canoe, swimming his horse. The next, perhaps, he would meet a war party of Indians bearing a scalp as a trophy. When camping with his companions at night he often witnessed the war dance, a strange spectacle to him. The yells and whoops of the Indians made them appear like demons. So proficient was he in surveying that he was made public surveyor for four years. The knowledge he thus gained of the Indian and his mode of warfare proved to be very valuable to him afterward, when he became an officer in the "French and Indian War."

When on a journey to Williamsburg, he stopped to dine with his friend, Major Chamberlayne, at William's Ferry. There he met Martha Dandridge, the young, rich and handsome widow of Daniel Park Curtis, who lived at the "White House," near by. Colonel Washington was now an important personage in Virginia, and when, on his return, he called at the "White

House" and made an offer of marriage, it was duly accepted. Their wedding was a brilliant one. The bride went to her husband's home in a coach drawn by six horses.

When he took his seat in the House of Burgesses, the Speaker paid him a high compliment. The Colonel rose to reply, but stood stammering and blustering. "Sit down, Colonel Washington," said the Speaker. "Your modesty equals your valor, and that surpasses the power of any language I possess."

When war against England was declared, he was made commander-in-chief of the army. After eight years of great privation, and many hard-fought battles, peace was declared, and the United States gained her independence. Washington was then elected first president, and he took the oath of office April 30, 1789. Some of the people desired to make him a king, but he declined the title. After serving four years, he was re-elected president, and at the end of another term he refused to be re-elected. He retired to Mt. Vernon, there, as he hoped, to spend the remainder of his life. But Congress, having in prospect a war with France, President Adams, who succeeded him in the presidential chair, called him again into the service of his country. He wrote, "We must have your name. If you will permit us to use it, there will be more efficiency in it than in many an army." So Washington was again commissioned commander-in-chief of all the armies raised or to be raised in the United States.

A short time after this he died, December 14, 1799. The resolutions expressing the mind of the national legislature on his death were drafted by R. H. Lee, and concluded with the appropriate words: "First in war, first in peace, first in the hearts of his countrymen."

He was buried at Mt. Vernon, where thousands of tourists annually visit his tomb. The boats which ply up and down the Potomac River always toll their bells when passing Mt. Vernon, in honor of the illustrious dead.

By resolution of Congress, the next succeeding anniversary of his birth, February 22d, was commended to the whole people as a day to be devoted to the commemoration of the deceased "father of his country."

George Washington

By J. RICHIE SCHULTZ

A day there comes in every year
To all Americans most dear,
When in each country-loving heart
True patriotic feelings start,
And everywhere they hold their sway
Throughout the land upon that day,
Kept sacredly by every one,
On which was born our Washington.

'Tis then our thoughts we backward cast
Through records of our country's past,
And view the old colonial days
When every man his homage pays
To Britain's king, across the sea,
The enemy of liberty.

We see the foreign yoke o'erthrown;
Our fathers will no ruler own
Who governs with a tyrant's hand,
But arm themselves and free the land.
But oh, the fearful years of strife,
The suffering and loss of life
Those heroes bore so patiently
To make themselves and country free.

But bright in this the hero's age
One name stands out on History's page
Among those who for freedom fought
And for their country's welfare wrought,
One who our valiant army led;
With them he struggled, fought and bled;
Through trials sore he ever rose
Triumphant over all his foes;
Through winter's cold at Valley Forge,
O'er all the soldiers of King George;
Across the icy Delaware
To Princeton's glorious battle, where
The Hessian troops were made to flee,
He won a glorious victory.
Tho' forced with hardships to contend,
He came victorious to the end.
Through battles lost to victories won—
This was our General Washington.

And then in peace the first as well
As mid the din of shot and shell,
For when he, covered with renown,
Was offered by his men the crown,
He scorned the sign of tyranny
To keep his land and people free.
When he by all the nation's voice
As President was made the choice,
With judgment and ability
He served his country faithfully.
And when, at last, to home and rest
He went by all his people blest,
With honors given, all unsought,
Which years of faithful service brought.

Then ever growing be the fame
That's given to that illustrious name,
Our country's greatest, noblest son,
The nation's pride, George Washington.
The first in war, the first in peace,
May still his fame through time increase
In speech of tongue, in stroke of pen,
First in the hearts of his countrymen.

THE one hundredth anniversary of the birth of Henry Wadsworth Longfellow is to be celebrated on the twenty-seventh day of this month by the Cambridge (Massachusetts) Historical Society. A special bronze medal will be issued in honor of the event, but the lines Longfellow wrote will long survive these medals of bronze and tablets of stone that lovers of the great poet have seen fit to have made. The celebration of the anniversary will not be confined to that of the Massachusetts society, but throughout all the states, schools, colleges and societies of all kinds will pay due homage to his memory.

THE BOYHOOD OF LONGFELLOW

Henry Wadsworth Longfellow was born in the old town of Portland, Maine, on the twenty-seventh day of February, 1807. His parents were both descended from pious old New England families. His father was an eminent lawyer and a man of strict integrity. He valued character above riches and honor, and took the utmost pains to instill into his boys a noble ideal of manly living. In a letter to Henry while a student at Bowdoin College, he says: "I am happy to observe that my ambition has never been to accumulate wealth for my children, but to cultivate their minds in the best possible manner, and to imbue them with correct moral, political and religious principles, believing that a person thus educated will with proper diligence be certain of attaining all the wealth that is necessary to happiness."

The romantic and imaginative side of his nature came from his mother. She was beautiful both in person and character. Her piety was tender, simple and unquestioning. She was "a lover of church, sermon and hymn, and a devout and constant reader of the Bible." Letters written to her son during his college days show that she was a woman of considerable literary taste and culture.

Under such healthful home influences our poet grew up. His childhood was bright and happy. He went with his parents, brothers and sisters to church twice every Sunday. The hours between services were spent not on the streets, but in the home circle, either in pleasant conversation or in the reading of religious books, every other kind for the time being laid aside. We do not find that he ever had occasion to regret that he was subjected to this strict discipline in his early years. On the contrary, it is certain that the serene faith and the spirit of earnest piety which he maintained throughout his life was due in large measure to this careful and rigid training. It would be well for boys and girls who sometimes imagine that their Christian parents are too strict with them to remember this lesson from a great man's life. Graceful submission to such wise and loving guidance will bring a rich reward in the years to come.

Doubtless you will be inclined to smile when I tell you that Mrs. Longfellow began to teach her son spelling and reading when he was three years old, and that he entered school at five. It would probably have been better if he had been allowed to play a little while longer before plunging into books, but the tasks laid upon him do not seem to have been heavy enough to seriously interfere with his freedom. His first letter—the first, at any rate, which has been preserved—was written to his father at Boston when he lacked a month of being seven. It is as follows:

"DEAR PAPA:—

"Ann wants a little Bible like little Betsey's. Will you please buy her one if you can find one in Boston? I have been to school all the week, and got only seven marks. I shall have a billet on Monday. I wish you to buy me a drum.

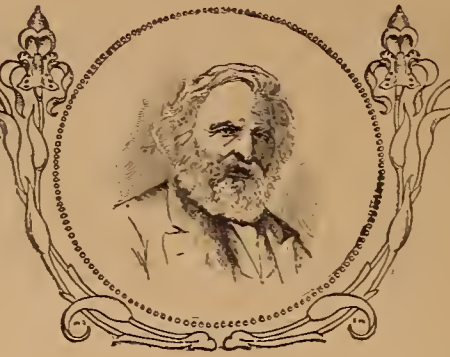
"HENRY W. LONGFELLOW."

It is pleasant to note that he thought of Ann's Bible before his drum. The "marks" of which he speaks were doubtless for slight offenses; the "billet" was a letter from his teacher commending his deportment, and diligence in his studies. He was an apt and eager student, and soon began to read all sorts of books. Washington Irving's "Sketch Book" was published when he was twelve years old. This, he tells us, was in a certain sense his first hook—not the first he read, but the first that thoroughly fascinated his imagination and at once excited and satisfied the desires of his mind. "I read each succeeding number," he writes, "with ever-increasing wonder and delight, spellbound by its pleasant humor, its melancholy tenderness, its atmosphere of reverence." Later on he came under the influence of Bryant, writing many of his earlier poems in imitation of him.

He was a lively boy, with brown hair, blue eyes, a delicate complexion and rosy cheeks. He was impetuous, but gentle and good natured. He was fond of play, as every healthy boy should be, but disliked loud noises and rude excitements. His older brother was fond of hunting, and Henry used to go with him in his excursions to the neighboring forests and marshes. One day, however, he came home weeping because he had killed a robin, and after that he could never be induced to hunt again.

His grandfather and an uncle lived on adjoining farms not far from Portland, and it was his delight to visit their houses during his vacations. He loved Nature, and nothing pleased him more than to wander through the wildwoods or play at farming—following the mowers at hay time, and going for the cows at evening in the penny-

Longfellow's Birthday Anniversary



royal-scented pastures; picking wild strawberries; peeping into the dairy to see the cheese presses and the butter making in the tall churns; in the autumn entering into the work and fun of the corn husking; watching the great spinning wheel, while the spinner walked to and fro as she fed the spindle from the heap of carded wool, or even filling the quills when the household loom was in use weaving the homespun."

Sometimes his vacation journeys extended as far as the little town of Hiram, where his grandfather Wadsworth lived. Not far from Hiram, in the neighboring town of Fryeburg, is a small lake known as Lovell's Pond, and famous in New England history as the scene of a fight with the Indians. The story of this fight made a deep impression on the boy's imagination, and became the subject of his first published poem, written in his fourteenth year. By the way, you have all probably read the story which relates that Longfellow's first poem was some silly lines about "Mr. Finney and his turnip."

It is a pity to have to spoil a story which has furnished boys and girls with so much amusement, but the poet himself is authority for the statement that the lines were not written by him. The verses on "The Battle of Lovell's Pond" were very poor, as were many others that appeared during the next few years. Men do not become great poets all at once. It requires years of drudgery and training to perfect them in their art. Longfellow had to serve his apprenticeship, and he succeeded, just as all others must, by diligent work and constant pains.

Longfellow graduated at Bowdoin in the class of 1825, and afterward, at various times, further enriched his mind by European study and travel. For twenty-five years (1829 to 1854) he filled a professorship in college—six years in Bowdoin and nineteen years in Harvard.

He was twice married. His first wife died at Rotterdam, Holland, in 1835; his second wife was burned to death in 1861, her clothes having accidentally taken fire while sealing an envelope at the flame of a taper.

A biographer has well said that Longfellow's chief characteristics were simplicity,

grace and refinement. Of imagination and passion he had but little. He does not often startle his readers by the utterance of a new and striking thought, but he perpetually charms them by presenting the ordinary sentiments of humanity in an inimitable and certainly more attractive style.

AN AMERICAN SHRINE

"Once, ah, once, within these walls,
One whom memory oft recalls,

The father of his country dwelt;
And yonder meadows, broad and damp,
The fires of the besieging camp
Encircled with a burning belt."

One recalls these lines when standing before the old Longfellow house in Cambridge, the most interesting private residence in New England because of its historical associations and because it was here that America's best-loved poet lived for so many years, and it was here that he died. It is known in Cambridge as the Craigie-Longfellow house, and dates back to the year 1759, when it was built by Colonel John Vassall, whose tomb may be seen in the ancient Cambridge churchyard not far from the house. He was a true loyalist, and his estates in Cambridge and Boston were confiscated. The house is evidence of the fact that he was a man of taste and of wealth, for his home was one of the most spacious and elegant in the Cambridge of his day. When John Vassall built this fine old house it had around it a fine farm of one hundred and fifty acres, and it was one of the most beautiful country estates in all New England. The builders of those days built well, for the old house is in a remarkably fine state of preservation after the lapse of nearly one hundred and fifty years since it was built.

George Washington took possession of the house as his headquarters on the fifteenth of July in the year 1775, and here he lived until the tenth of April of the year 1776. His bedroom was the southeast room on the second floor—

"Yes, within this very room,
Sat he in those hours of gloom,
Weary both in heart and head."

Washington's study was directly under his bedroom, and it was this same room that Longfellow chose for his own study long years afterward. Opposite this room, across the hall, is the spacious room in which Mrs. Washington received her guests. Mrs. Washington came to the house on the eleventh of December in the year 1775, coming from Virginia.

When Washington left the house it became the property of one Nathaniel Tracy, of Newburyport. He was a very hospitable man, and the mansion was the scene of much social gaiety during the time he lived in it. Tracy returned to Newburyport to live, and Washington was his guest in that old town in the year 1789, and in 1824 Lafayette was the guest of Tracy and occupied the same room Washington had occupied. The third occupant and owner of the house was Thomas Russell, a very wealthy Boston merchant, of whom it is told that he sometimes showed that he had more money than brains, for he once "showed off" by eating a sandwich made of two slices of bread and a hundred-dollar note. Following Russell the house was occupied by Dr. Andrew Craigie, late apothecary general to the Continental army, who, we are told, paid eighteen thousand dollars for the estate. Craigie had amassed quite a fortune, and the house lost none of its reputation for hospitality while he occupied it. He was fond of entertaining, and two of his most distinguished guests while he occupied the house were Talleyrand and Prince Edward, who came to our country in the year 1794. In the social history of that day is recorded the fact that the dashing prince danced four dances with Mrs. Russell at a great ball given in his honor, and as he danced with no one else she was as much delighted as the other ladies were chagrined. Whether it was because of riotous living or for some other reason, Andrew Craigie did not leave his widow a fortune when he died, and she was reduced to the extremity of keeping boarders in her fine mansion. Among her famous boarders were Edward Everett and Joseph Worcester, the lexicographer, and Henry W. Longfellow, who became one of Mrs. Craigie's boarders in the year 1837. Mr. Longfellow was at this time a young professor at Harvard College. He was given the room once occupied by Washington, and it was in this room that he wrote his "Voices of the Night" and "Hyperion." Indeed, Longfellow wrote most of his poems in this house, for the house became his own in his later years, and here he lived until the time of his death in 1882. His study is kept just as it was at the time of his death. No article of furniture in the room has been changed from the position in which he left it, and all the appointments of his desk are just as they were when he sat there last.

Visitors who have the good fortune to be admitted to the house notice at once the "Old Clock on the Stairs." He gives us this description of the clock and of the location of the house:

"Somewhat back from the village street
Stands the old-fashioned country seat.
Across its antique portico
Tall poplar trees their shadows throw;
And from its station in the hall
An ancient timepiece says to all—
Forever—never!
Never—forever!"

What Longfellow wrote of the old clock is as true now as when he wrote it, for

"Half way up the stair it stands,
And points and beckons with its hands
From its case of massive oak,
Like a monk, who, under his cloak,
Crosses himself, and sighs, alas!
With sorrowful voice to all who pass—
Forever—never!
Never—forever!"

Hundreds of visitors find their way to this time-honored house of history, around which cluster so many associations that endear it to the American people.

THE WAYSIDE INN

Every reader of Longfellow's poetry must remember his "Tales of a Wayside Inn," but some of them may not know that the "Wayside Inn" to which the gentle poet referred was a very real hostelry, and that it is still standing, with the latchstring still hanging out for the wayfarer who would tarry there for a season.

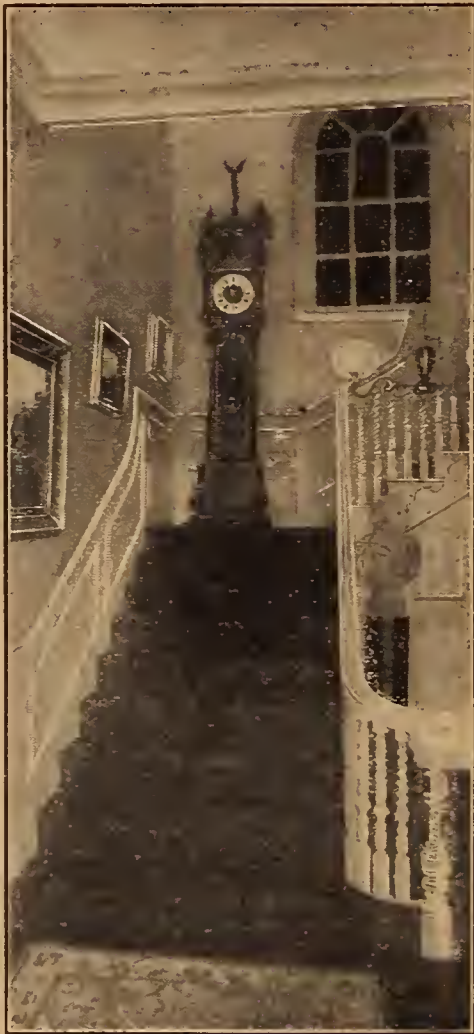
The real name of the inn in the long-ago days when it was young was the "Red Horse Tavern," and it stands in the old town of Sudbury, thirty miles from Boston. It is one of the oldest inns now standing in our country, and could it be given speech it could tell many an interesting tale of those who have found rest and good cheer beneath its roof. In the old days the "Red Horse" was the most popular inn on the post road between Boston and the Connecticut River. The stage coach was the chief mode of transportation in those days, and travelers who left Boston in the morning dined at the "Red Horse," where a good dinner was ready for them, with a royal welcome from Mine Host Howe. Generations of Howes have been hosts of the old tavern. On a sign board still there reads:

D. H., 1686.

E. H., 1746.

A. Howe 1796.

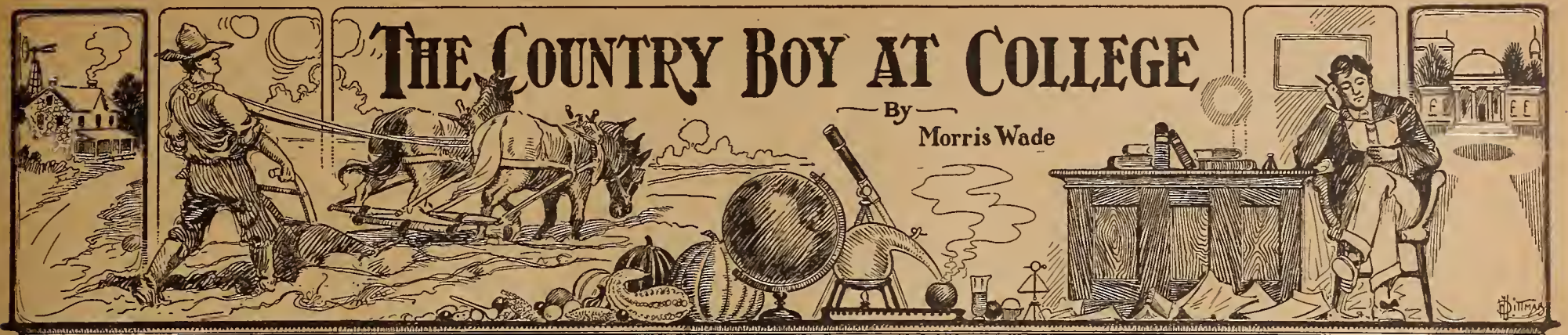
The "Red Horse" was built about the year 1680, and for one hundred and fifty years it was continuously an inn, kept all that time by successive generations of Howes.



THE OLD CLOCK ON THE STAIRS



LONGFELLOW'S HOME



So you want a college education, do you? Well, there is no good reason why a farmer's boy should not give himself this invaluable acquirement. Nor is there any good reason why he should not be able to turn an education of this kind to good account on the farm. Indeed, a good education should be a source of great pleasure to a man in any environment. Never was the value of an education so great as now, and never was it easier for the boy who is determined to do so to secure an education. All of our large colleges and universities have scholarships to be had, not for the asking, but as a return for hard and faithful work. The writer knows two young fellows who graduated from Harvard University last June, and neither of them had to pay a cent after the first year for tuition nor for their room and board. They won scholarships large enough to pay for both, and one of them graduated with nearly two hundred dollars left of the scholarship he had won that year. But I can tell you that neither of these boys was conspicuous on the football team, nor did they go in for much of the club life of the college. They went to college for business, and they attended strictly to business after they were there. They did a lot of as hard work as they would ever have done on any farm, and if they were not up and at it as early as you farmer boys are on a farm they were up and "pegging away" at their studies long hours after the farmer boy is in bed. That is one of the objectionable features of college-student life; the students keep such late hours. It is really necessary for them to do it in order to keep up with their studies and secure the coveted "A" in their markings. It would be better for them to go to bed early and rise early, but somehow they never do it. No one goes to bed early in the cities, and there seems to be something in the very atmosphere of a college town or in college life that makes it out of the question for the students to get to bed betimes; and most of them know what it is to burn the midnight oil, even though they are not studying their lessons. The allurements of a large college town are many and fascinating, and the social life they offer is usually very attractive and almost irresistible to the young fellow who has known very little social life on the farm. If he belongs to many clubs and college societies, he is apt to devote a good deal of time to them, and it is to be feared that some young fellows "go through college" chiefly for the fun they get out of it. The average boy from the country is not so likely to be classed with these young fellows, because he usually goes to college at a good deal of a sacrifice on the part of some one, and sometimes he has had to work very hard for the money with which he is entering college. And the boy who has worked for his money is likely to appreciate its value far more than the boy whose "governor" or "dad" has handed it over to him. Appreciating its value, he is not so likely to waste any of it in riotous living, and there is a good deal of this kind of living in some of our college and university towns.

There are those who are quite sincere in their feeling that the farmer's boy does not need a college education if he is going to remain on the farm; or, at most, he does not need any education other than that to be received at some good agricultural college. It is argued that all college students spend a great deal of time in acquiring information about a great many things they are never able to turn to account in a practical way. No one denies that there is some truth in this, but it is also true, as some one has written, that "It makes little difference what the trade, business, or branch of learning. In mechanical labor or intellectual effort the educated man is always superior to the common laborer. One who is in the habit of applying his powers in the right way will carry system into any occupation, and it will help him as much to handle a rope as to write a poem." Yes, and it will help him in doing all the homely and hard work of the farm. It will give him a larger and broader outlook on life, and add much to his own resourcefulness. Young has told us that "Learning makes a man fit company for himself." It makes a man capable of enjoying life in any environment if he has books and the current literature of the day, and these are to be found in most of the farm homes of our day.

You will remember that in one of the readers once in common use in our public and district schools there was a story about the little man who said so frequently that "Knowledge is power." So it is. And it is power, no matter who or what its possessor may be. And ignorance is weakness. It imposes mighty limitations on a man, and makes it impossible for him to compete with his fellows for the best things of life.

It must be admitted that there have been in the past many men who have made notable successes of their lives without see-

ing the inside of a college. There are men in our day who are thus successful, but we cannot say that they were ignorant men. They were self-educated, and it is probably true that not one of them but who would have been still more useful and brilliant with a good education.

Of course, we know that very few indeed of the boys from the country who go through college do so with the intention of going back to the farm when their education is completed. This does not apply so generally to the boys who attend our agricultural colleges. But the students of Harvard and Yale and Princeton are not planning to become farmers. If they are from the country, they have bade good-by to the old farm for reasons similar in most cases to those given by a very large number of country-bred boys in Cornell University, who were asked by Prof. L. H. Bailey, director of the College of Agriculture, why they had left the farm. Most of the students gave as their reason for not intending to become farmers that they did not propose to become farmers because farming does not pay. Others said the work was too hard, and others that the social opportunities of the farm were too limited. Of the one hundred and fifty-five letters received by Professor Bailey, very few were written in the spirit of one student, who said:

"When I entered the university, and registered in mechanical engineering, I had the idea that a fellow had to get off the farm, as the saying goes, 'to make something of himself in the world,' and that a living could be made easier, with more enjoyment, in another profession. But now, after seeing a little of the other side of the question, if I had the four years back again, agriculture would be my college course. As for country life being unattractive, I have always found it much the reverse. The best and happiest days of my life have been on the farm, and I cannot help but wish I were going back again when through with school work."

Another student was pretty severe in his arraignment of the farm conditions of the present day, for he said:

"I do not intend to follow farming as a business, for the following reasons:

"(a) It is unprofitable.
"(b) It is a life solely of physical labor. I consider myself better adapted naturally for mental work.

"(c) Although a respectable occupation (all honest work is respectable), it does not offer a field for extensive development of the broader and nobler of human faculties.
"(d) It is a life which involves a never-ending monotony of daily routine.

"(e) Viewed from its present status, it is a life in which no self-respecting man should ask a woman to participate. I say this because of the ceaseless care and unlimited toil which fall to the lot of the farmer's wife."

These letters from farmer-boy college students may be found in the July number of the "Century," and they are most interesting, as revealing the reason why so many country boys are giving themselves a college education for the purpose of fitting themselves for work away from the farm. Professor Bailey is right when he says that these replies bring up questions of great public concern, for they have to do, in a broad way, with the position that the farmer occupies in the economic and social status. Forty per cent of the boys wish to leave the farm because it is not remunerative; but it is a question if most of them find the other occupations in which they are to engage more remunerative, or if they will be any better off twenty years from now than they would have been had they remained on the farm.

Now as to the boy on the farm who is determined to go to college. Go by all means, if you can, and start in with the determination to make very minute of your time count while you are there. Go determined to win all the "honors" possible, and not to fool away much time in the mere pleasures of college life. Yet it is right and natural that there should be some play and pleasure in your college life, and you can study all the better for a little recreation now and then.

Of course, you will have to attend some preparatory school before you enter college. It is not easy, in this day of high standards, for a fellow to fit himself by home study for entering any of our larger colleges. If you wish to enter the freshman class of a college like Princeton you would have to pass an examination in English, Latin Grammar, Latin Composition, Latin Sight Translations, Roman History and Geography, Greek Grammar, Greek Composition, Greek History and Geography, Elementary French, Elementary German, Advanced French and German, Arithmetic, Plane Geometry, Algebra, Solid and Spherical Geometry, Logarithms and Plane Trigonometry. That is a good deal for a young fellow to buckle

up to, a great deal more, in fact than your grandfathers had to know when they entered college, for the standards of admission to our larger colleges have been raised a great deal in the last half century. It takes "right smart of a boy" to enter college in our day, and he must do a good deal of hustling if he is to make good in every way after he is there.

As to the cost of living while he is a student, that is a very flexible item, but one that the boy from the country usually wants to reduce to its lowest terms because of the slenderness of his purse. Recent years have developed a good deal of foolish and extravagant living among the sons of the well-to-do at some of our larger universities, like Harvard and Yale. Some of the scions of the wealthy with plenty of money will have suites of three or four elegantly furnished rooms, while other students at the same university live in one small, plainly furnished room which they share with a room-mate to lessen the expense.

Harvard University makes the following estimate as the lowest cost of living during the school year:

Tuition	\$150.00
Room	30.00
Furniture (annual average)	10.00
Board (thirty-nine weeks)	117.00
Fuel and light	11.00
Sundries	40.00
Total	\$358.00

This estimated bill of expense makes no allowance for books and stationery, laboratory charges, washing and clothing, although the forty dollars allowed for "sundries" might help to meet some of these expenses. From this estimate it will be seen that a young fellow would do well to allow himself at least four hundred dollars a year at Harvard; and if he can add fifty dollars to this sum, all the better. Some students make the mistake of not allowing themselves sufficient good, nourishing food while at school. It would be better to stint themselves in almost anything than proper food. Yale University submits the following as the lowest expenditure possible:

Tuition	\$155.00
Rent and care of half room	20.00
Board	125.00
Furniture	10.00
Washing	15.00
Fuel (steam heat) and light	15.00
Textbooks and stationery	10.00
Total	\$350.00

It will be noted that there is no item for "sundries" in this estimated expenditure, and as twenty-five dollars are allowed for washing and textbooks, another twenty-five dollars might be sufficient for "sundries."

Princeton College makes three hundred and twenty-nine dollars its lowest estimate for the college year, and other colleges of equally high standing estimate that a student can "pull through" on from three hundred and twenty-five to four hundred dollars a year. But the student who does this must be prepared to practise a good deal of self-denial, and it will require a good deal of moral force for him to keep from falling into some of the extravagances of college life. Harvard calls a thousand dollars a "very liberal" allowance for a student at that institution, and there are many students there who spend more than that sum annually. It does not follow that you need do so, and all this expenditure does not add one whit to the mental attainments of the students. The boy "grubbing along" on three or four hundred a year at college has just as good a chance to graduate with the highest honors as the fellow who is spending fifteen hundred a year. In fact, the student who is spending the last-named sum is wasting a good deal of time getting rid of so much money, and his name is not often found in the honor list on commencement days. He cares more to be a "swell" than a student, and is one of the fellows who is in college "for the fun of the thing."

One hears a great deal about the temptations of college life. But are there not temptations in every walk in life? The morally weak young fellow will yield to the ever-present influences of evil everywhere. He is a good deal of a pessimist who would have you believe that our modern colleges are veritable sink holes of iniquity. The Y. M. C. A. and other helpful religious organizations are to be found in most of the large colleges of to-day. There are, of course, chapel exercises every day, and the most eloquent preachers in the land are among the ministers to be heard at the larger colleges.

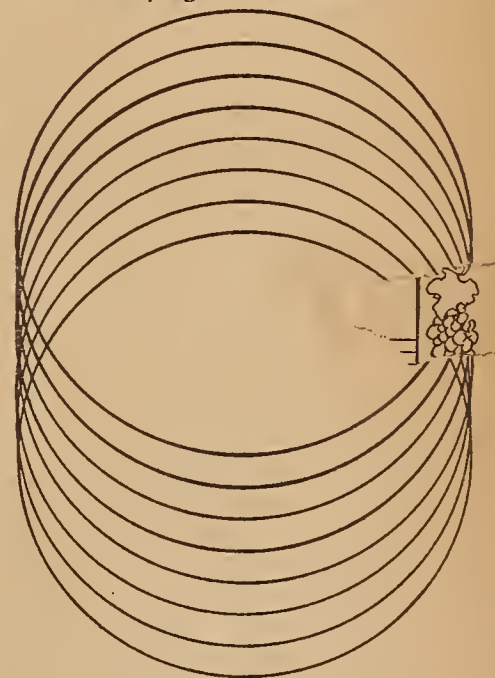
And, after all, a college education is not absolutely necessary to the highest degree of success in life. The experience of every

age has demonstrated this, but there are some professions in life in which a college education is necessary to success, and there is no position in which a good education is not a fine thing to have. The positive ignoramus stands a poor chance in our day, and is apt to come in for a good deal of open ridicule. It is true that "Every man has two educations—that which is given to him, and that which he gives to himself. Of the two kinds the latter is by far the more valuable. Indeed, all that is most worthy in the matter he must work out and conquer for himself. It is this that constitutes our real and best nourishment. What we are merely taught seldom nourishes a man like that which we teach ourselves."

And one may teach oneself a great deal on the farm. Mother Nature is herself a great teacher, and in no place does she teach to such advantage as in the country. The alert, ambitious boy need not grow up in ignorance in this day of the world, even though his only school, his only college, is the district schoolhouse. But if he can give himself a better school than this, let him do so by all means. Then will he be better fitted to take his place in that still larger and greater university—the world.

The Puzzler

Is This Cylinder Standing on End or Lying on Its Side?



CHARADE No. 1.

My FIRST and SECOND, you will find,
Are always in connection,
So carefully bear this in mind
And give it due reflection.
My THIRD and FOURTH are duly seen
Whene'er I cut my tresses,
As will appear to all, I wcen,
Whoe'er this riddle guesses.
My WHOLE has been and is most dear
To every genuine Yankee,
And now if you the meaning clear
Will make we all will thank ye.

CHARADE No. 2.

My SECOND was in wrath one day,
The cat had stolen the joint away
(Cold meat for Sunday's dinner).
"Well, dost thou, wretch," he fiercely cried,
"Deserve that I should THIRD thy hide,
Thou Sabbath-breaking sinner.
Thou may'st my FIRST and lick thy jaws,
But wait awhile, I know the laws
For stealing meat on Sunday;
My ancestor the WHOLE has made,
The rule I ever have obeyed,
And thee I'll hang on Monday."

CHARADE No. 3.

Last winter I spent with a friend of my dad,
Whose covers abounded with all sorts of
game,
And many a pleasant excursion we had,
While climbing my SECOND in search
of the same.
Then, when over many a long mile we had
toiled
And shot of my WHOLE several brace
of the best,
We carried them home, had them all nicely
broiled,
And my FIRST I assure you I relished
with zest.

Answer to puzzle in the February 1st issue: Hounds, Brake, Box, Reach, Axles, Bolster.

SEAL fishery, strictly speaking, is not a "fishery" at all, but a hunt; the seals are found on the great Arctic ice floes, and the killing is done there by hunters, not fishermen, who range over the crystal plains and make regular battle among the helpless herds.

Considering it from its international aspect the Bering Sea Seal Fishery has attracted so much attention that the kindred industry in Newfoundland is comparatively little known to the outside world, though as important financially and attended by fully as much excitement and adventure as the same industry on the Northwest coast.

The industry is a remarkable one. It occupies only six or eight weeks in the early spring, employs twenty-two

The Great Seal Fisheries

By William S. Birge, M.D.

men rarely change their clothing from the moment they leave until their return home—indeed, there is no available room for them to carry anything more than they stand in, and to save space on the return home their sleeping quarters are all crammed full of pelts, and they must sleep about the decks at night. Black with coal dust, begrimed with dirt, his outer garments covered with blood and oil, he is certainly an unsavory-looking object. Notwithstanding all these discomforts, and the fact that the most a seal hunter can make with a "loaded ship" is \$50, and the average is only about \$28, there are hundreds of men eager for a place on the ships who cannot be accommodated.

The Newfoundland, or hair seal, differs from the Alaska, or fur seal, which is valued for the rich, soft velvet fur which ladies love, while the hair seal is valued for its skin and fat, the former being converted into leather and the latter used for various purposes. The finest grades of Russia and patent leather are made from these skins, and when split they are manufactured into "kid" gloves. The oil forms a basis for high-priced scented soaps, and with the stearin extracted is used in lieu of "olive oil," from which it cannot be detected.

There are two species of seal found in Newfoundland, the Harp and the Hood. The Harp gets its name from the peculiar markings on the back, the Hood from a formation of skin like a monk's cowl which lies behind its head, and which it inflates when angry. The Harps are mild and inoffensive; so harmless that any youngster of twelve or fourteen

a strange humanlike whimper, resembling a baby in distress. They are killed by a heavy blow on the head by a stout iron-tipped club, which fractures the skull. The parent seals are more difficult to dispose of, especially the Hoods. The hunter may rain blow after blow upon the cowl, while the fierce old creatures menace him with teeth and claw-tipped flippers, and it often happens that he

obtained in three or four weeks time would net nearly \$60,000. This is divided into three shares—one for the ship, a second for the outfitter, and the third for the crew, which is divided according to their different ratings. The ordinary hunters make about \$40 each, riflemen get an extra \$5, and the captain a percentage of the entire catch. With a full ship he will oftentimes make \$2,000, the investment frequently yielding thirty or forty per cent for the owner and outfitter. If the season be unsuccessful the owner has to bear all the loss, for the sealing laws forbid him to carry over the charges against the men from one year to another.

The sealing laws prohibit any killing on Sundays, in deference to a sentiment among a large section of the people. Notwithstanding the fact that any cap-



A TYPICAL NEWFOUNDLAND SEALER



SEAL ROOKERY OR BREEDING GROUND



LAND KILLING OF SEALS

steamers and about 4,000 men, and if successful yields a return of about \$400,000. The occupation is necessarily a dangerous one. Scarcely a season passes without some gruesome tragedy, and it is not surprising that anxious hearts should eagerly await the news from the earliest home-comer from the fleet.

The adult male population of Newfoundland is about 40,000, and as 4,000 are engaged in the seal hunt, practically every family has at least one relative among the sealers.

In the early days the seals were taken in nets or hunted in small boats along the shore. Gradually decked crafts came into use, these in turn being replaced by schooners, which later gave way to the all-conquering advance of steam.

The time set for the opening of the seal fishery is March 10th, and no steamer is allowed to sail before sunrise. The most uncomfortable feature of this business is the crowding of the men on board the ships without any regard to sanitary or health conditions. The character of the industry necessitates the carrying of large numbers of hunters to effect the killing and loading in the shortest time, and from 200 to 300 men are taken on steamers that for ordinary purposes require from fifteen to twenty. They are packed like sardines in a box, and it is impossible to pay any attention to sanitary rules or material comforts. Their food is of the coarsest, and the

years has no difficulty in killing them. The Hoods, on the other hand, are wild and fierce, and when aroused are dangerous adversaries. The Harps herd in great armies on the vast plains of sheet ice. The Hoods are solitary and prefer the rough, shapeless masses broken from the Greenland glaciers.

The female seals give birth to their young on these ice fields, whelping about the end of February, when the floes have drifted off the southern coast of Labrador. By the middle of March, when the steamers reach them, the young are large enough to kill. The young seals are the most sought after, their skins and oil being considered the best; but if they cannot be got in sufficient numbers, the ships fill up by slaying the parents. The Harps make "blow holes" through the ice to admit of easy access to the ocean in which they fish, and no matter how large the herd, every mother seal, leaving her offspring in the morning to procure the day's supply of food, will return to it unerringly at night, though the floes may have drifted miles from their position of the morning. This shows evidence of maternal instinct, but as soon as the "pup" has learned to swim, for it must be taught, her affection for it ceases, and she leaves it to shift for itself.

The young seals are easily killed. They are too inert to move, and lie and await the hunter with big, pleading eyes, and

has to beat a hasty retreat. The male seals or "dogs" are often exceedingly ferocious, and no one man will attack them unless he is armed with a rifle. A man can often kill from fifty to seventy Harps in a day, without unusual exertion, but he may not get more than fifteen or twenty Hoods in the same period, and to secure these puts his life in peril time and again. The blow holes of the seals, and the young ice also invite mishap, and when a victim plunges into one of these it is next to impossible for him to extricate himself alone, therefore the hunters travel in pairs, one assisting the other in time of danger or mishap. If a man is unlucky enough to fall in he strips himself naked behind a hummock, which will shelter him from the breeze, and then wrings out his garments and dons them again.

The seals are usually taken in the vicinity of Belle Isle Strait, and the hunt lasts about six weeks, though many of the ships return fully laden within a month. The "catch" or load of a ship varies with her size and that of the seals themselves. The largest number of seals ever taken by one ship was 42,973 by the "Neptune," in 1898, but a goodly proportion of these were "cats," that is, young seals weighing forty pounds or under. A full load of good-sized young seals for one of the largest ships would be about 38,000, and if each pelt brought \$1.50, a fair price, the value of a cargo

tain would consider it a disgrace to be caught breaking the Sunday law, a most prolific source of litigation and perjury among the crews is the stealing of seals from each other. A successful ship will have many piles of skins floating about at nightfall, when divers men from vessels less fortunate will go on the floes, tear away the flags and torches of the real owner and substitute their own, picking up the pelts during the night or early the next morning. Almost every vessel is thieving in this fashion from every other, and the result is constant actions-at-law and counter-actions when they come home. For each side brings forth a crowd of witnesses prepared to swear to anything and everything that will prove a point or win their case.

"We haven't much of a case, boys," observed the skipper to his men a few years ago, "but surely you are not going to let them other scoundrels outswear you." When a verdict of acquittal was rendered one skipper, he proudly marched out at the head of his gallant band, and turning to them, with husky voice he exclaimed: "Men ye swore noble!"

The moral sense of the sealing community has become so perverted in this particular that the man who in every other way is a model citizen, and would hesitate to take a penny's worth from his neighbor, would think nothing of the most flagrant perjury with regard to the theft of seals.



SEALS ON THE ALASKAN COAST

Ma Little Brown Babee

Words by
Wallace Bruce Amesbury

From "Ballads of Bourbonnais,"
by permission of Bobbs-
Merrill Company

A French-Canadian Lullaby

Music by
Will A. Harding

Moderato.

mf Ma pret-ty brown babee, wid eyes lak' de sea, W'en de sun kiss de top of de wave, W'at
O lit-tle brown babee, de pride of my life, W'at will you be w'en you are grown? You'll

mf *simile.*

for do you frolic so roguish wid me An' mak' such a fonney be - have?.. Is it 'cause you are loving your pa-pa so well You try to do jus' as he
help rone de farm an' gat you de wife All o-vere the county be known.. I'd radder you stay where you are, *ma garçon*, Jus' de lit-tle brown babee to

cresc. *mf*

do?... O lit-tle brown Babee, spe'k op an' tell me, Can you say noddin' else but "Ah, goo!" I know dat be-hin' dem, dose lit-tle brown eye', Dere is
me,... To nes-tle an' lof' you t'roo all de day long, No joy com' so great dat I see.... But de tam' he don' wait, he push along 'head, He

cresc. *mf*

som't'ing you're wanting to say.... But wait lit-tle tam' an' de words he will fly, An' your lip will keep moving all day....
mak' no ex-cep' out of you.... It's hard for to t'ink dat some day we'll be dead, It seem ver-ree strange but it's true....

First time.

Second time. *ad lib.*

D.S. So, little brown Babee, com' close to ma breas' W'ere ma heart its beat strong wid ma lof', An' sof'ly go sleeping an' tak' your good res' W'ile de

Slower. *p* *colla voce.*

rit. e dim.

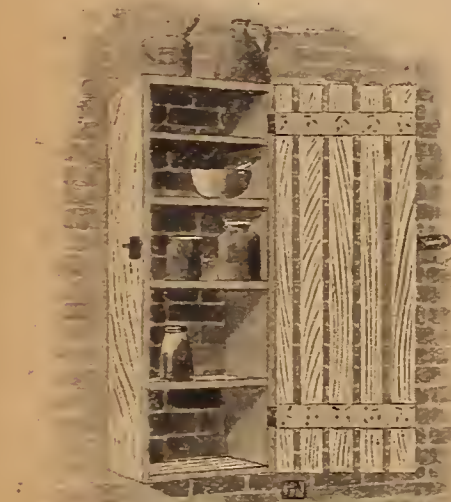
An-gels dey watch from a - bof',.... W'ile de An-gels dey watch from a - bof'....

rit. e dim. *a tempo.* *pp*

Home-Made Helps in Housekeeping

“A PLACE for everything and everything in its place,” though a time-worn adage, is none the less worthy of being observed. Every one knows that countless small things not in daily use in the household are unnecessarily dumped on the floors of the store room, which in most homes are the cellar and attic. This article is intended to show how neat and suitable accommodations for such things can be made with little trouble and less expense.

The hanging wall shelf shown in one of the illustrations is one of the simplest of the cellar conveniences. The shelf of the desired length is made from two or three boards, which are nailed fast to a batten laid across the under side six or eight inches from either end. If the boards are ten feet long, an additional batten will be necessary at the middle. On the brick or stone work of the cellar wall nail a long strip of wood the length of the shelf and about twenty-four inches from the ceiling. On this the edge of the shelf will rest, where a nail or two at each end will hold it securely in place. The front edge of the shelf is hung from



A NEAT WALL POCKET

beams by means of sticks an inch thick and two or three inches wide. They should be nailed to the battens underneath the shelf, and not to the edge of one of the boards forming the shelf. There should be as many drop hangers as there are battens under the shelf.

For preserves, jellies, jams and other tempting things that are sometimes prone to disappear more quickly than calculated, a very secure storage place can be made against the walls of the cellar. In the illustration of the canned-fruit safe the construction is so clearly shown that very little description is necessary. A framework five feet long and three feet high is made from boards ten inches wide and planed on both sides. Two shelves are nailed fast inside this framework, which is then nailed securely to the wall, where the greatest weight is supported by a strip of wood attached to the wall underneath the frame. Two or three angle brackets will lend additional support. The doors are made of slats two inches wide, nailed to the battens at the top and bottom with nails longer than the thickness of the two pieces of wood, so that they may be clenched at the back, thus preventing the slats from being easily pried off. Hinges and a hasp and padlock will secure the doors.

A wall pocket is made in a similar manner, but instead of boards a long box can be employed, in which several shelves may be nailed fast.

While the storage of vegetables in small quantities does not require any particular care, it is convenient to have them all in one place instead of in odd boxes, baskets and barrels that in a darkened cellar may have to be dived into several times before the right recep-



A HANGING WALL SHELF

tacle is found to contain the particular vegetable sought. For the convenience of the cook or the housekeeper a vegetable bin and ledge in a corner of the cellar will make work easier. Then, too, the vegetables will last longer than if stored in boxes on the cellar floor, where dampness and lack of air will shrivel or rot them in a short time.

Purchase at a grocery store five or six canned-goods boxes of equal size, and knock the bottoms out. Lay the boxes down side by side, and across them nail



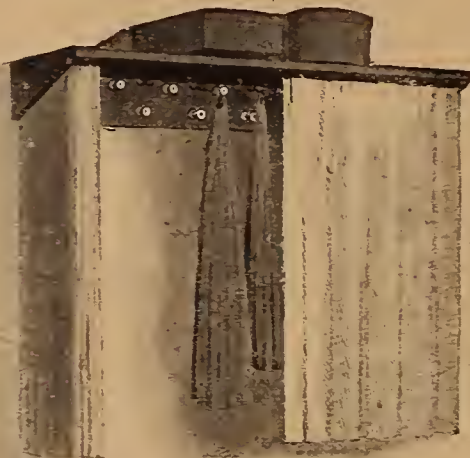
The Housewife

several slats two inches wide and an inch thick, leaving a space of about an inch between the slats, to afford ventilation. These spaces will also make it possible to sweep up from the floor beneath any accumulation of dust or dirt from the vegetables. To the brick or stone work of the cellar nail a strip of wood for the boxes to rest on. If they are to

occupy a corner, nail a short strip as shown in the illustration, for one end of the slats to rest on. The legs should be nailed fast under the front edge of the boxes, and also to the floor, with long steel-wire nails. The names of the vegetables can be painted on the fronts of the boxes in black letters, where they can be read in a very weak light. Above the bin a ledge eight or ten inches wide can be supported on two or three brackets, where cabbages, lettuce, parsley or other green vegetables may be stored temporarily.

The nest for the attic shown in the illustration was made of a shoe box and a canned-goods box nailed together, and both nailed to the side of the attic. Shelves were then cut from the cover of the boxes. In the top of the short box a number of small holes were bored with a bit, and into them sticks six or eight inches long and one half inch in diameter were driven, with a little glue on the ends to insure a firm anchorage. These are for lamp chimneys.

Summer dresses and cotton clothing will not remain in nearly so good a condition when packed in a trunk as when hung up; but to hang them in the open attic would only make dust catchers of them. The clothes press and hat-box ledge shown in the illustration solves this problem very easily. One board twelve



A CLOTHES PRESS AND HAT-BOX LEDGE FOR THE ATTIC

out of the water instead of pouring it from them. When thoroughly washed, cover with fresh cold water, and let stand, covered, in a porcelain-lined or granite kettle until the next morning, then put them over the fire in the same water, and let simmer slowly and gently until perfectly tender, but not so soft that they lose their shape. Sweeten very little.

Cooked in this way prunes are not at all like those quickly stewed without the preparatory soaking, and there are few palates which reject them.

A simple yet delicious way of serving this fruit is baked. Wash and soak one quart of prunes as directed, add to them three tablespoonfuls of sugar, the juice of a lemon and two cupfuls of water. Bake in a covered dish in a moderate oven for two and one half hours. Serve with whip-

ped cream, or before taking from the oven heap over the top the whites of two eggs whipped to a stiff froth with four tablespoonfuls of powdered sugar. Let brown very delicately, with the oven door half open. Serve cold.

Stuffed prunes make a very pleasing sweet. To each quart allow the juice of two lemons and one and one half cupfuls of sugar. Let them simmer very gently in a double boiler for four or five hours. Let cool, then remove the stones. Fill the cavities with chopped nuts mixed with a little soft fondant.

For spiced prunes, stew the fruit in water to cover until soft, then pour off the water, and for each pint of prunes allow two cupfuls of sugar, one cupful of cider vinegar and a teaspoonful each of powdered cloves and cinnamon.

To make a delicate yet rich jelly, cover one quart of washed prunes with one quart of water, and let simmer slowly



A CANNED-FRUIT SAFE FOR THE CELLAR

inches wide is nailed to the wall, and the other one, of the same width, is provided with brackets at the ends, the rear edge being nailed to the top edge of the anchored board. Ordinary spools are nailed or screwed fast to the back board as shown, and to the under side of the shelf drop hooks are attached.

The whole side of an attic can be arranged with a series of shelves and curtains for summer and winter clothing.

JOSEPH H. ADAMS.

The Useful Prune

IN MANY households the prune is held in actual contempt, and used only when the scarcity of other fruits makes its occasional appearance upon the family table seem almost a necessity. This is to be regretted, for it is a fruit containing a large proportion of valuable food elements, and one withal so delicious that it is eminently worthy of a place upon the daintiest of menus. The average cook perhaps has not pushed her acquaintance with it sufficiently far to learn of the many varied and pleasing ways in which it may be served, and not a small number have yet to learn the correct way of preparing it even when served simply stewed.

This fruit should always be very carefully washed through several hot waters, rubbing each prune gently between the fingers while doing so, and lifting them

For an excellent winter pie, line a pie tin with good paste, brush it over with white of egg, then fill with stewed pitted prunes made quite sweet and flavored with lemon juice and cinnamon, and bake in a quick oven until done. Then spread over the pie a thick meringue made with the whites of two eggs and four tablespoonfuls of powdered sugar. Brown very lightly in a slow oven. Serve cold with or without whipped cream.

An old-fashioned charlotte made with prunes is quite as delicious as one made with a more popular fruit. Butter a pudding dish well, and line it with small, thin slices of buttered bread (crusts removed), then pour in a quart of stewed pitted prunes which have been liberally sweetened and flavored with almond or lemon. Cover with slices of bread, sprinkle the top with sugar and bits of butter, and bake for thirty minutes in a moderate oven. When done, turn out carefully, and serve hot with cream and sugar or whipped sweetened cream.

In an emergency plain stewed prunes may quickly be made into a delicious pudding. Press them through a colander,



A NEST IN THE ATTIC

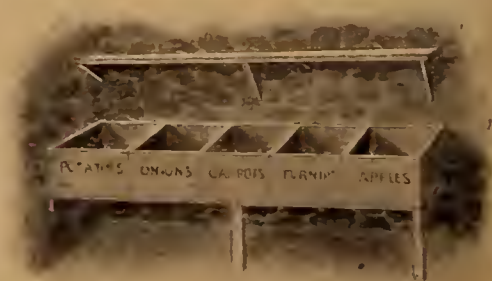
and to each cupful allow stiffly whipped white of one egg and one tablespoonful of granulated sugar. Beat all thoroughly together, and bake twenty minutes in a very slow oven. Serve with whipped cream sweetened and flavored with vanilla, lemon or almond.

MARY FOSTER SNIDER.

Propagating Roses

EDITOR FARM AND FIRESIDE—I see in the January 1st issue of your valuable paper an answer to an inquiry “how Bridal Wreath and Crimson Rambler roses are easiest propagated,” and thought perhaps my experience might be worth something to others. I will offer it, at least as a more convenient, if not more successful, plan than the one that was given.

The Crimson Rambler or any other rose that doesn't throw up shoots from the roots of the parent plant can be easily propagated by bending down a small twig or branch onto the soil about the parent plant. After bending, cover a small portion of the twig with soil, hold in place by laying a small stone or other weight on where it is covered with the soil, and you will soon have a nicely rooted plant that can be then cut loose from the parent plant without injury to either. They can be rooted at any time during the growing season. The Bridal Wreath will soon form a dense hedge by simply keeping the soil about the roots free from sod, and any abrasion of the roots near the top of the ground will cause new shoots to start up. I have a hedge of it that completely screens the vegetable garden from view from our back yard,



A VEGETABLE BIN AND LEDGE

and it has come from a single plant set out about twelve years ago. It is a thing of beauty from earliest spring to hard frosts, as the bright, glossy green of the foliage is real pretty even when the blooming period is past. The soil is a light sandy loam, and that may be the reason why the plant has spread so rapidly. A heavier soil might not give as good results.

Mrs. G. C. BAIN.

Oatmeal Wafers

BEAT an egg very light without separating the white and yolk. Add one fourth of a teaspoonful of salt, one fourth of a teaspoonful of vanilla, half a tablespoonful of softened butter, half a cupful of sugar, and one and one fourth cupfuls of rolled oats. Beat together thoroughly, and drop from a teaspoon onto a buttered tin. Bake in a slow oven.

Colonial Cap in Crochet

TWO hanks of white Germantown yarn, one yard of inch-wide white satin ribbon, and three yards of four-inch soft white wash taffeta, for strings and rosettes, are the materials required. Begin the crown with a ring of six stitches, into which crochet twelve double stitches; on the next round crochet twice in each stitch. Continue widening, when necessary, for about ten rounds, then no more widening, to allow the crown to cup. This part should fit the head close to the ears. Divide this crown in the middle, and place a mark front and back. Beginning at the end not marked, turn the work so the rest will fold back against the



COLONIAL CAP IN CROCHET

crown when finished, and crochet to the first mark. Make three stitches in one—and the same at the opposite side. Continue the rounds, widening in the same place each time, until the two points will meet at the top of the crown after the meeting and scallop are made. The finish is a scallop of twelve stitches well drawn out, with a row of white silk in single crochet put on last. The narrow ribbon goes in the casing, while three rosettes are made of the soft wide ribbon that remains after the strings are measured off. Sew one on top and one at each ear, for a protection. This is an exceedingly stylish and becoming little head covering, and very pretty when made of yarn to match the coat.

M. E. SMITH.

To Remove Spots from White Material

LEEK, rust or mildew may be removed from white goods with tomatoes. Crush a ripe tomato on the spots, and allow it to remain for several hours, then rub it gently and wash out through clear warm water. If any stains remain from the tomato, pour scalding water on the material. This has been tried for all the different kinds of spots, and has never failed to remove them. Canned tomatoes can be used successfully if the fresh ones cannot be procured.

M. W.

Caramel Junket

COOK three fourths of a cupful of sugar to caramel. Add hot water, and let cook, stirring after a time, until a thick sirup is formed. Let cool a little, then turn into one quart of rich milk and one cupful of cream. Add also one fourth of a cupful of sugar, and if not already at blood heat, set the dish containing the mixture into a pan of hot water for a few minutes. When at the temperature of about ninety degrees Fahrenheit stir in a junket tablet, crushed and dissolved in one tablespoonful of milk or water, then turn into sherbet glasses. Let the glasses stand in a warm place until the mixture jellies, then chill before serving. For a more elaborate dish, just before serving decorate each cup with whipped cream flavored with vanilla and sweetened before whipping.

Cold Storage

MEAT used while fresh is more nutritious and palatable than salted or cured meats. "Vick's Magazine" well says that it is therefore desirable to use as much of it uncured as possible. It is very difficult to keep meat fresh during the summer months without the use of ice, and even then but little can be handled at one time on the ordinary farm. Where a room or family refriger-

ator can be kept at a temperature of forty degrees or less, with good ventilation and circulation of air, fresh meat can be kept for a week or ten days. It is very important that the circulation be free and the air dry. Moisture in a refrigerator tends to develop wet mold or slime, and a little decay soon contaminates the whole piece. Less difficulty will be experienced in keeping fresh meat if it is kept in a room where the temperature is high and the air dry than where the temperature is low and the air damp.

Where an ice house is filled each year a small portion of it may be partitioned off as a cold-storage room. With the ice properly packed on three sides of it, and with good drainage, this makes a very satisfactory place for keeping meat, and it may also be used for storing butter and other perishable products.

In the North meat is kept during the cold season by freezing. A carcass is cut up into quarters, or even smaller pieces, and hung in an outbuilding, where it will remain frozen solid. When a portion is wanted it may be cut off with a saw. If the meat is taken into a cold room and slowly thawed out the flavor is only slightly injured. No more should be taken in at one time than is wanted for immediate use. Repeated freezing and thawing are injurious to the flavor and quality of the meat, hence the importance of keeping it where the temperature will remain sufficiently low to prevent thawing.

Insects should not be allowed to get at the meat. For this reason a dark, cool cellar is the best place for keeping fresh meat on the farm. The cellar should be clean and free from odors, or the meat will become tainted.

Care of Men's Clothes

THE fine work which a woman puts into her own personal dress is as nothing compared with the painstaking and minute efforts which the average man requires of his womankind in the care of his belongings. The "stitch in time" of a hasty, rough-and-ready description which does duty in times of stress for more thorough treatment never yet satisfied the masculine standard of sewing, and few women at some period of their lives have not had cheerfully to undergo tutelage in the right and wrong ways of reparation, from sewing on buttons to pressing coats and ironing hats.

Tears and cuts are always difficult to manage successfully at home, and the only practical method of darning is to unravel the cotton or wool from the woof of the fabric, and employ this in short needlefuls to bridge the space or draw the edges together. The darn should afterward be pressed with an iron over a damp piece of muslin. Horsehair can be employed with great success in the case of rents in homespun when the wool of which it is woven cannot be used. The hair should be threaded in the ordinary way through a needle, and given a backward turn at the commencement of each needleful, so as to make the ends secure.

Men's gloves should always be mended with silk instead of cotton, and where driving gloves are concerned, the hole—if in the seam—should be drawn together on the right side.

The correct way to brush a coat is to spread it on a flat surface with the collar directed toward the left hand, operations being begun at the inside of the collar, and down the back, fronts and sleeves, following the nap of the cloth. In folding a coat the sleeves should first be turned back so that the crease comes just below the elbow, the lapels then doubled over the sleeves, and the "skirt" of the coat turned over the lapels in order that the hem of the coat comes under the collar when this is folded down. Trousers must be brushed from the top downward, but folded from the bottom upward, the crease exactly defining the center. Two clothes brushes are essential to a man's clothes—a hard one for removing mud, and a softer one for ordinary dust. A new blacking brush answers admirably in the former case.

Swiss Soup

TAKE soup stock of any sort. Cut potatoes in cubes, and cook in the stock until tender. Cut cheese in cubes, also bread crumbs. Put the cheese into the soup before it is removed from the fire, but do not let the soup boil longer. Dispose the bread cubes in the hot tureen, and pour the soup over them.

We are planning some great things for good old FARM AND FIRESIDE these days. We have only three things to ask of you, and they are the three cardinal duties of a loyal subscriber to FARM AND FIRESIDE: (1) Answer the advertisements; (2) keep your subscription paid up; (3) get other people to subscribe. This last is very important. If you are too busy yourself, your children can help you and at the same time help themselves. I suppose you know all about the great Pony Contest.

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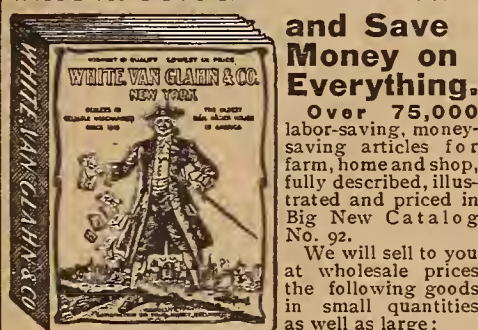
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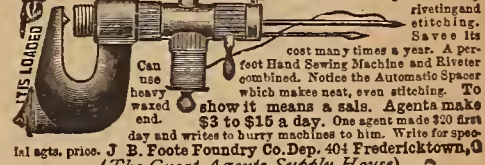


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Fashions for Home Sewing



No. 860—Corset Cover with Bust Extender

Pattern cut for 32, 34 and 36 inch bust measures. Quantity of material required for medium size, or 34 inch bust, two and three fourths yards of twenty-two-inch material, or one and three fourths yards of thirty-six-inch material, with seven yards of lace and one and one half yards of beading.

No. 861—Combination Skirt and Drawers

Pattern cut for 22, 24 and 26 inch waist measures. Quantity of material required for medium size, or 24 inch waist, three and three fourths yards of twenty-two-inch material, or two and one half yards of thirty-six-inch material, with five yards of lace and two and one half yards of beading.

Now that it is the gown which clearly defines the figure that's the fashion, the slender woman is on the lookout for all sorts of devices which will improve her figure.

The corset cover illustrated in pattern No. 860 on this page is sure to prove a most useful little garment to the woman whose figure is not well rounded. The corset cover is trimmed in front with three lace-trimmed ruffles which act as a bust extender. The garment is made with a plain back with a few gathers at the waist. The full front closes through a box plait. The beading is used for the belt, the shoulder straps and to outline the neck.

Though the separate fancy blouse and the shirt waist continue to be fashionable year after year, yet this season very many costumes will be worn. These gowns will not only be correct in style for dress occasions, but everyday wear. They consist of a fitted waist and skirt; the waist



Showing How the Featherbone is Stitched in a Waist by Machine, and How the Belt Tape is Secured.

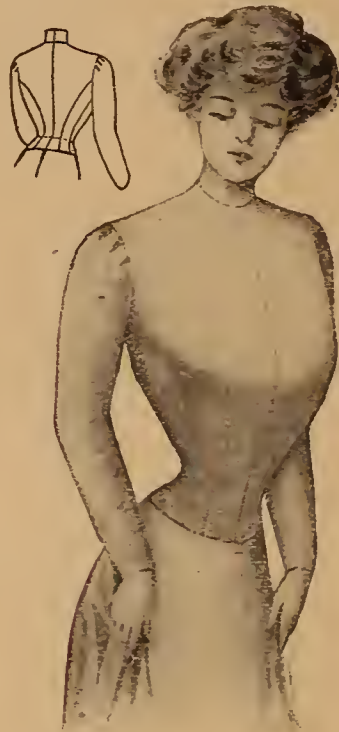


No. 859—Child's Tucked Dress

Pattern cut for 6 months, 1 and 2 year sizes. Quantity of material required for medium size, or 1 year, three and three eighths yards of twenty-seven-inch material, or two and one half yards of thirty-six-inch material.

made of the same fabric as the skirt, or matching it in color. These waists are all mounted on closely-fitted boned linings which are molded to show the lines and curves of the individual figure, and form the foundation over which all of the draped and fancy waists are arranged.

This dressmaking lesson tells in detail all about the making and boning of the



No. 858—Model Waist Lining

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one fourth yards of twenty-two-inch material, or two yards of thirty-six-inch material.

fitted waist lining, and though it is not the part of the gown that is visible, yet upon its correctness and good lines hinges the success of the entire gown.

The FARM AND FIRESIDE lining patterns are noted for their perfect proportions, graceful lines and curves, and their adaptability to the individual figure.

The pattern of the Model Waist Lining, No. 858, shown on this page, contains seven pieces: Front (labeled V), under-arm gore (W), side gore (Y), back (T), collar (L), upper of sleeve (K) and under of sleeve (F). Place the pattern on the lining with the edge of the collar marked by triple crosses on a lengthwise fold. Place the other parts of pattern with the line of large round perforations in each lengthwise of the goods. The different parts should be cut out of the lining double—not one at a time.

The amateur dressmaker frequently finds that a lining pattern is either too long-waisted or too short-waisted to suit her figure, and is at a loss to know what course to pursue in rectifying this fault. One illustration on this page shows the different parts of the waist lining separated. They are cut about two



No. 883—Plaited Empire Morning Jacket

Pattern cut for 32, 36 and 40 inch bust measures, small, medium and large. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-two-inch material, or three yards of thirty-six-inch material.

inches above the waistline. If the lining is too long-waisted, cut it apart and lap it one quarter, one half or even one full inch, and pin the pieces of the pattern together before placing it on the lining. If it is too short-waisted, the pattern may be separated in the manner shown here, and pinned securely to the lining before cutting it out. Mark all of the notches and seams carefully before removing the pattern.

When the lining is cut out, take up the darts in the fronts by bringing the corresponding lines of small round perforations together. After basting, cut away the surplus material, allowing three eighths of an inch for the seam. Join the seams as notched. In closing the shoulder and under-arm seams, bring the corresponding lines of small round perforations together. One inch seam is allowed at these points as a safety outlet, for it is on the shoulders and under the arms that most of the fitting is done in a waist. On all other edges of the pattern three-eighths-of-an-inch seam is allowed.

Join the seams of the sleeve as notched. Gather the sleeve at upper edge between double crosses, and sew in the armseye, placing front seam at notch and top notch at shoulder seam. Join the collar to neck by notch, and fasten at the back.

The pattern No. 858 is made to reach below the waistline all around. It is also perforated for a waist that is short at the back and slightly pointed in front.

How to Order Patterns

For every design illustrated on this page we will furnish a pattern. The working directions of each pattern are carefully explained on the pattern envelope. In ordering, be sure to mention the number of the pattern desired and the size required. The price of each pattern is ten cents. Send money to the Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York.



Showing How the Lining Pieces May be Cut Apart and Adjusted for Short or Long Waisted Figures.

To-morrow

BY HENRY WADSWORTH LONGFELLOW

Lord, what am I, that, with unceasing care,
Thou didst seek after me, that thou didst wait,

Wet with unhealthy dews, before my gate,
And pass the gloomy nights of winter there?
Oh, strange delusion, that I did not greet
The blest approach! and oh, to heaven how lost,

If my ingratitude's unkindly frost
Has chilled the bleeding wounds upon thy feet!

How oft my guardian angel gently cried,
"Soul, from thy casement look, and thou shalt see

How he persists to knock and wait for thee!"

And oh! how often to that voice of sorrow,
"To-morrow we will open," I replied,
And when the morrow came, I answered still,
"To-morrow."

This sonnet is one of Longfellow's translations from the Spanish poet Lope Felix De Vega Carpio. This writer was born at Madrid, November 25, 1562, and died August 26, 1635. He was a most prolific writer. This sonnet is taken from his "Rimas Sacras."

Baroness Burdett-Coutts

WITH the death of Baroness Burdett-Coutts on December 30th, England lost its most conspicuous woman. In philanthropy, character, intellect and wealth she easily ranked first. This remarkable woman was born in 1814, and her whole life was one of activity and fruitfulness, and though advanced in years she managed her large estates with wonderful vigor even up to the day of her death. Commenting, the "Interior" well says that neither her splendid vitality, her wealth nor her title will be the chief cause for her remembrance. She was a real type of that class which has been so derided by the cynical—those who consider themselves, as possessors of wealth, held to the responsibility of administering it for the weal of humanity. At the age of twenty-three she inherited nine million dollars from her grandfather, and at once she began that career of whole-hearted usefulness which occupied her life and to which she devoted a large part of her fortune. There was scarcely a line of philanthropic effort which did not receive her attention. With Charles Dickens she visited the slums of London, and many thousand pounds were devoted to providing better housing for the poor. She furnished funds for Livingstone in Africa, built market houses and fountains, assisted emigration, endowed bishoprics, organized anti-cruelty societies, built churches, succored the soldiers in the Crimea and during the Turko-Russian War, and aided constantly many good causes, without regard to class or sect. Here was a life that was indeed lived to its fullest.

Women Who Should Never Marry

THE woman who proudly declares that she cannot hem a pocket handkerchief, never made up a bed in her life, and adds, with a simper, that she has "been in society ever since she was fifteen."

The woman who would rather nurse a pugdog than a baby.

The woman who thinks that men are angels.

The woman who would rather die than wear a hat two seasons old.

The woman who thinks that the cook and nurse can keep house.

The woman who expects a declaration of love three times a day.

The woman who buys ornaments for the drawing room and borrows kitchen utensils from her neighbors; and who thinks table decorations are of more importance than good food.

The woman who wants things just because "other women" have them.

A good woman is a wondrous creature, cleaving to the right and good in all change; lovely in her youthful comeliness, lovely all her life long in comeliness of heart.—Alfred Tennyson.

A Rich Boy

"OH, MY," said Ben, "I wish I was rich and could have things like some of the boys that go to school."

"I say, Ben," said his father, turning around quickly, "how much will you take for your legs?"

"For my legs?" said Ben, in surprise.

"Yes! What do you use them for?"

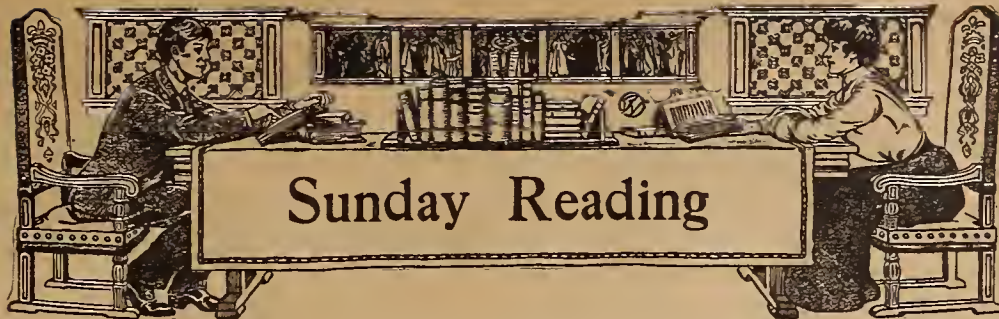
"Why, I run and jump and play ball, and oh, everything."

"That's so," said his father. "You wouldn't take ten thousand dollars for them, would you?"

"No, indeed!" answered Ben, smiling. "And your arms; I guess you wouldn't take ten thousand dollars for them, would you?"

"No, sir."

"And your voice. They tell me you sing quite well, and I know you talk a little bit. You wouldn't part with that for ten thousand dollars, would you?"



Sunday Reading

"No, sir."

"Your hearing and your sense of taste are better than five thousand dollars apiece at the very least, don't you think so?"

"Yes, sir."

"Your eyes, now. How would you like to have fifty thousand dollars and be blind the rest of your life?"

"I wouldn't like it at all."

"Think a moment, Ben; fifty thousand dollars is a lot of money. Are you very sure you wouldn't sell them for so much?"

"Yes, sir."

"Then you are worth that amount, at least. Let's see, now," and father went on, figuring on a sheet of paper; legs ten thousand, arms ten, voice ten, hearing five, taste five, good health ten, and eyes fifty; that makes a hundred. You are worth one hundred thousand dollars at the very lowest figures, my boy. Now, run and play, jump, throw your ball, laugh and hear your schoolmates laugh, too; look with those fifty-thousand-dollar eyes of yours at the beautiful things about you, and come home with your usual appetite for dinner, and think how rich you really are."—Churchman.

The Open Road

SO MANIFOLD is opportunity, so open is the road of higher success to ability, industry and character, that human life may be fairly described as a divine chance to do and to be that which lies in the imagination of youth. God does not deceive the fresh, instinctive faith of childhood; life does not lie to those who trust its promises. It is commonplace only to those whose natures, tastes and aims are commonplace. To those who have eyes for what Carlyle so well called "the open secret," life is often severe, painful and even tragical in its happenings; but it is never less than great, and that it shall be great in its ultimate possibilities is all that we have a right to ask of it.—The Outlook.

The Prayer on the Battleship "Texas"

"BEING a newspaper man myself, I was inclined to doubt that story about Captain Phillip of the 'Texas' holding a prayer service at the end of the Santiago naval battle," said Congressman C. B. Landis, of Indiana, not long ago. "I determined, if the opportunity ever offered, to ask for information from some one who was there when the newspapers said that the incident occurred."

"Some time after the war I was at Wilmington, Delaware, on business, and I asked the clerk at the hotel what ship it was. He said it was the 'Texas.' 'And Jack Phillip commands her,' said I. 'I wish I could see him.'"

"He sits there," said the clerk, and pointed across the hotel lobby to a man who fitted perfectly my idea of the American sailor. I walked over and introduced myself. We breakfasted together, and afterward he took me to the ship, where I spent the entire day. We returned to Wilmington together that night, he to go to New York and I to go to Washington. It was not until we had almost touched the dock that I summoned up the courage to ask him about that prayermeeting. But I did."

"He looked at me rather curiously and hesitated in answering. But this is something of what he said to me in the dusk of that night as we floated between the lights of the city and the lights of the ship: 'Mr. Landis, there are some questions which we hesitate to answer, for they touch our hearts deeply. When I was a boy up in New England my mother taught me to pray, and I can repeat to you to-day whole chapters that I then learned from the Bible. Men say sailors are wicked—perhaps they are—but there never was a man so wicked who forgot the teachings at his mother's knee when a child, and who fails to support himself with the recollection in crises. Well, sir, it is true. When the battle ended, and the smoke lifted from the face of the water and revealed the power of Spain crushed for the sake of humanity, and we were overwhelmed with the knowledge that the rain of the shot and shell has passed to the right and the left and over and under the old 'Texas,' we did lift our voices in prayer of thanks to the Almighty God, whose victory it was; and I saw tears stream-

ing down the faces of old salts in whose bosoms no man would suspect to find a heart."

"Why, Mr. Landis, if your hat blows off and a man returns it to you, you thank him; you fall on the street and some one aids you to regain your feet, you express gratitude. It was the arm of God which won our battle for us, and we lifted our voices in thanks."

"Well, in a hundred years from now men will not quarrel about who was the hero of Santiago; the world will have agreed that Phillip, not Sampson, or Schley, is entitled to the laurel."

"I have been told by men prominent in the affairs of other nations that that incident evoked more interest and exerted a greater influence upon the nations of the world even than did the invincibility of our arms in the Spanish War.—National Review.

Famous Boys

A WOMAN fell off the dock in Italy. She was fat and frightened. No one of the crowd of men dared to jump in after her; but a boy struck the water almost as soon as she, and managed to keep her up until stronger arms got hold of her. Everybody said the boy was very daring, very kind, very quick, but also very reckless, for he might have been drowned. The boy was Garibaldi, and if you will read his life you will find these were just his traits all through—that he was so alert that nobody could tell when he would make an attack with his red-shirted soldiers, so indiscreet sometimes as to make his fellow-patriots wish he was in Guinea, but also so brave and magnanimous that all the world, except tyrants, loved to hear and talk about him.

A boy used to crush flowers to get their color, and painted the white side of his father's cottage in Tyrol with all sorts of pictures, which the mountaineer gazed at as wonderful. He was the great artist, Titian.

An old painter watched a little fellow who amused himself making drawings of his pot and brushes, easel and stool, and said, "That boy will beat me some day." So he did, for he was Michelangelo.

A German boy was reading a blood-and-thunder novel. Right in the midst of it he said to himself, "Now, this will never do. I get too much excited over it; I can't study so well after it. So here goes." And he flung the book out into the river. He was Fichte, the great German philosopher.—Our Dumb Animals.

The Church Should Be Invincible

IN THEIR total membership, in their aggregate property holdings, in their combined intellectual, social and moral influence, the churches represent enormous power, and if they were united for one end are capable of almost any achievement in the interests of the public. In all the respects named the churches together far outweigh the combined interests of the liquor dealers, and if they acted as harmoniously and solidly together as the latter do would have no difficulty in accomplishing their purposes. Acting as one strong arm, they could strike a blow at the liquor curse from which it could never recover.—Leslie's Weekly.

How to be Inspired

SOMETIMES a general is said to inspire his soldiers. That is to say, he puts his own spirit into them. He has courage and strength and hope; and they come under his spell and influence, and they have courage and strength and hope, too. There is an analogy between earthly things here also and divine things. That is the way Christ in his spirit influences and helps us. But what is the condition we must comply with on our part? If you want to be helped by men and inspired by men you must put yourselves under their influence. It is so in regard to our relations to Jesus Christ.—Arnold Thomas.

We thank thee for life's homely ways,
The discipline of working days;
For hearts made tenderer by trial;
For the stern teaching of denial;
For pain that keys the quivering chord;
For joy and grief, we thank thee, Lord.
—Mary F. Butts.

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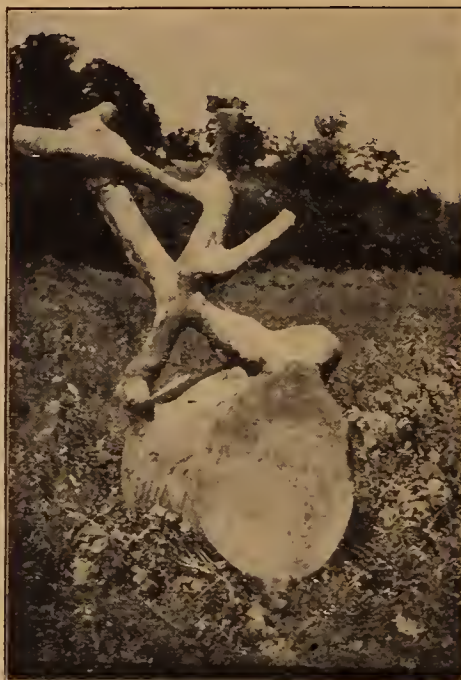
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Of Curious Interest

A Chained Rock

ON A rocky bluff of one of the shores of Green Lake, Wisconsin, a great mass of sandstone was chained to its place, when crumbling at the base threatened to unbalance it and send it toppling over into the lake a hundred feet below. The purpose was to preserve the natural features of the place. A wealthy citizen of St. Louis, William Lucas, son of a distinguished citizen of that city, established a summer home on the lake. He was a pronounced Nature lover and sought in many odd ways to preserve Nature's



A SYCAMORE FREAK

work for all time. He seemed to love the great rocky pillars that had been set up by the Creator, and when the ravages of time and the weather threatened to destroy them, he undertook to prolong their life by chaining them to their foundation.

In the picture is seen one of these big rocky formations. A cable as large and heavy as that which dangles the anchor of a great ship has been passed about the rock, and the ends have been grounded far back on the bluff.

Mr. Lucas is said to have spent over \$100,000 on this place. He occupied it as a summer place for about twelve years and then abandoned it to ruin.

J. L. GRAFF.

About the Presidents

TWENTY-FIVE Presidents of the United States in one hundred and sixteen years make an average term for each of four years and eight months, says the "Sunday Magazine."

Had none been re-elected and all served their full terms, there would have been twenty-nine. Had all, both elected and re-elected, served their full

terms, there would have been only twenty, or an average term for each of five years and nine months.

Eight—Washington, Jefferson, Madison, Monroe, Lincoln, Grant, Cleveland, and McKinley—were re-elected. All but Lincoln and McKinley served their full terms. Five—William Henry Harrison, Taylor, Lincoln, Garfield, and McKinley—died in office.

Based upon past experience, there is one chance against four that a President will not serve his full term.

All but Washington, William Henry Harrison and Grant were lawyers, although few, if any, attained to great eminence in their profession.

Monroe, Hays, Garfield, Benjamin Harrison, Arthur, McKinley, and Roosevelt had some soldierly fame.

Washington, Jackson, William Henry Harrison, Taylor, and Grant were elected primarily on account of successful military achievements.

Both Adamses, Jefferson, Madison, Monroe, Van Buren, Buchanan, Lincoln, Cleveland, McKinley, and Roosevelt were chosen by reason of distinguished political careers.

Polk, Pierce, Hayes, and Garfield were nominated as compromise candidates, because of the close contests between more prominent aspirants.

All were Anglo-Saxon, except Monroe, Polk, and Buchanan, who were of Gaelic origin; McKinley, of Celtic; Pierce, of Frankish; and Van Buren and Roosevelt, of Dutch.

Two elected from Tennessee bore practically the same name, Jackson and Johnson.

Seven—Washington, Jefferson, Madison, Monroe, William Henry Harrison, Tyler, and Taylor—were natives of Virginia; as was Lincoln's father, who resided there only a short time previous to the birth of his distinguished son.

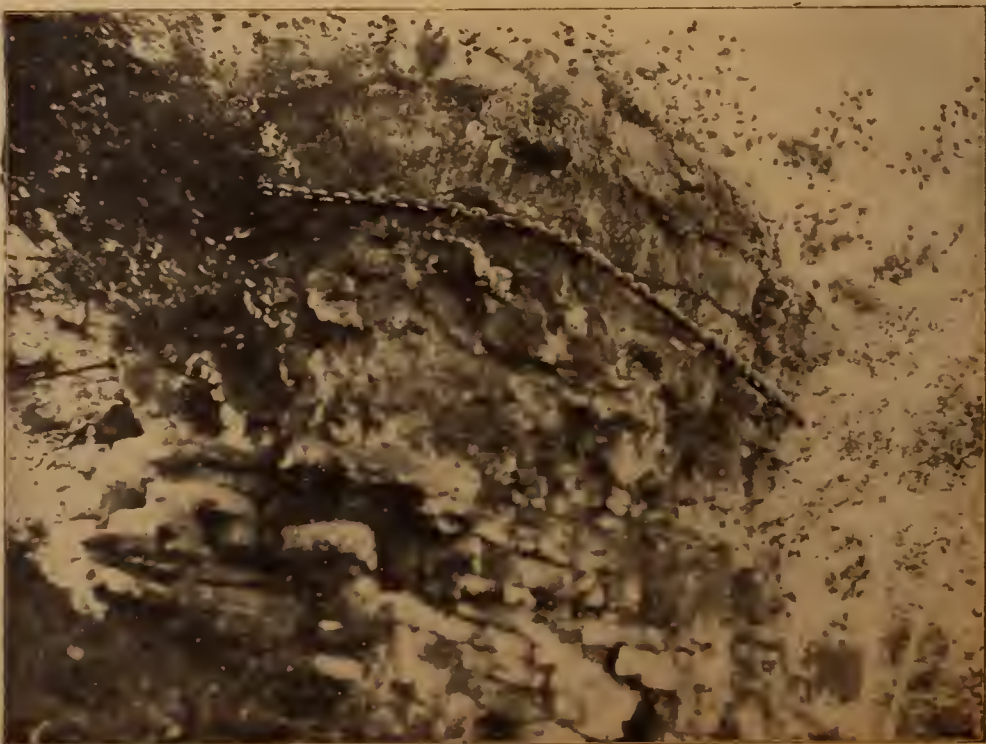
Five—Grant, Hayes, Garfield, Benjamin Harrison, and McKinley—were natives of Ohio; three—Jackson, Polk, and Johnson—of North Carolina; three—Van Buren, Arthur, and Roosevelt—of New York; two—the elder and younger Adams—of Massachusetts; Pierce, of New Hampshire; Buchanan, of Pennsylvania; and Cleveland, of New Jersey.

Nearly one half of the twenty-five were born in Virginia or Ohio; the other thirteen in seven other states. All but two of the nine states were of the original thirteen.

A Sycamore Freak

RECENTLY John Folmer, a resident of a suburb of Pomeroy, Ohio, cut down a large sycamore tree for the purpose of converting it into lumber. Thirty feet from the ground he found the odd interlacing and growing together of limbs as shown in the picture herewith. He saved out this section and preserved it for a combination horse block and hitching post in front of his premises.

C. E. HARTLEY.



THE CHAINED ROCK

NOTICE

This Department to Be Discontinued

It is necessary to state that we do not find it possible to handle promptly and satisfactorily all the queries sent to this department.

Most of the queries are of personal rather than of general interest, and relate to statute law.

There are many differences between the statutes of the various states on the same subject, so that the correct answer to a legal query from one state may not apply at all to the same question from any other state.

The large number of queries received cause an unavoidable delay in giving printed answers, and this delay is a constant source of annoyance and disappointment to querists.

Therefore, it has been decided that it will be for the best interests of the great majority of our subscribers to discontinue this department, and devote the space to farm reading matter.—Editor.

Recording of Mortgage

W. S. W., New York, says: "A. and B. are brothers. A. resides in Ohio, and has real estate. B. resides in New York, and has a first mortgage on A.'s real estate. B.'s mortgage was given five years ago with interest, but there has been no interest paid. Will this mortgage need to be renewed? If so, how long after given?"

The mortgage would not need to be re-filed nor re-recorded until the debt is barred by the statute of limitations. There is no such thing with us in Ohio, as the re-filing or the re-recording of a mortgage on real estate. When the mortgage is dead, or if it is desired to renew the debt, a new mortgage is required. A promissory note in Ohio is good for fifteen years from the time it is due, and the mortgage given to secure the same would be good for that length of time. Under a peculiar ruling of our laws, a mortgage itself might possibly be good for twenty-one years.

Right to Revoke a License

G. D. K., New York, writes: "A. gave B. his consent to dig a well in a piece of woods. B. has had access of the well over twenty years. If A. sells the piece of land, can the new owner stop B. from long after given?"

I am somewhat at a loss to know just how to answer the above query. And this is so, because courts have not been in accord in their decisions of like questions. It is a general rule of law that adverse possession or a prescriptive right cannot be acquired if the right is enjoyed by consent or license of the owner of the principal estate, and as a general rule licenses are revokable at the option of the person giving them. But there is another rule that where by virtue of such license the parties make an expenditure of money, then the license becomes irrevokable. So, in the present case, if B. made a large expenditure of money in digging the well, there might be some question whether the courts would now allow A. or the person to whom he sells the property to interfere with the user of such well. If the expenditure was not a large one, it seems to me that the holding of the court would be that it was a mere license, revokable at any time that the owner of the land might see fit. However, there may be facts not stated in the query which would induce the court to hold that the right is irrevokable.

Divorce After Six Months' Absence

G. B. E., Kentucky, writes: "I would be very glad to know in which of the states it is that any one can be divorced after six months' separation?"

There is no state in the Union, to my knowledge, that will grant a divorce upon the ground merely of six months' separation. Divorces are sometimes granted for a short period of separation, but upon other grounds, such as gross neglect of duty or extreme cruelty, and matters of that kind.

Inheritance—Child of Second Wife—Pay for Keeping

A., Ohio, writes: "A. having a ninety-acre farm given him by his parents, married, and after ten years the wife died, leaving one child. A. married again, and has children; also second wife has one child by first marriage. Can the child of the first wife collect anything? Nearly everything in house-

The Family Lawyer

Querists desiring an answer to a legal inquiry should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail

hold effects that belonged to first wife, and a great many things that were the husband's, were let go with the child, when the grandparents took the baby, which was only three weeks old. Can grandparents collect anything for care and keeping of child? The wife gave him to her mother before death. What share will wife No. 2 get in the property? What belonged to her before marriage can she hold independent of everything? What share, if any, does the child of second wife get?"

When the first wife died, her personal property no doubt went to the husband, and if the mother's parents took the child, I do not think that they could collect anything for its care, unless they made a demand on the husband for that purpose. The second wife would have a dower interest in the real estate that belonged to the husband. What was her own property, that she would hold. The child of the second wife would have no right to inherit any of the property belonging to the stepfather.

Weight of Testimony—Wife Against Husband

M. P. S., Ohio, wishes to know, "whether in a divorce suit the testimony of the wife, if unsupported by other testimony, would be sufficient to justify the court in granting a divorce, especially if the husband gave testimony in opposition to the wife."

In answer to this query, I would say that it is generally incumbent on the plaintiff in a court proceedings to establish his case upon fair preponderance of the testimony, and if the testimony of the husband and wife are of equal credibility in the eyes of the court, the plaintiff of course would fail with her case; but there are too many things about a witness in giving testimony that may incline the court to believe what one says and reject the testimony of another. This cannot be described, but is evident in the trial of all cases. The witness' bearing on the stand has a great deal to do with the testimony; likewise surrounding circumstances have considerable, and so have the motives of the parties.

Mistake in Conveying Real Estate

C. G. M., Pennsylvania, writes: "A. had ninety-two acres of land fronting on two public roads. He decided to lay it out in five-acre plots, and gave a thirty foot road through the same for outlet. B. bought ten acres on a corner, fronting on both public roads and running west to the proposed new road before balance was surveyed, paid cash and received a warranty deed. A. sent B. a blue print of the tract after the survey. B. discovered that the figures on the print do not correspond with his deed, and notified A. of the fact. A. claims there is a mistake in the deed and wishes to change it to correspond with the blue print. B. objects, as it will cut off an acre of good ground to the west and give him the same amount of rough land to the south. A. says it will spoil plots to the west if deed remains unchanged. B. claims survey should have been made to conform to his tract as surveyor furnished rough draft and figures from which deed was made. Can A. force his new road through B.'s tract when he has other land west of B.?"

If the deed that was first made was a mistake of all parties, then it could be rectified, and it would be held only to convey that which it was intended by the parties, but failed so to do by reason of such mistake. If the deed as it now stands is not in accord with the real intention of the parties, then it should be corrected. A. would have a right to go into court and have it corrected according to the intention of the parties. It seems that it was the intention of A. to convey according to the blue print, and that B. understood that he was to receive his land to the proposed road. If this be true, it seems to me that A. might force his new road through at the point that the blue print indicates to be the true lines of the lands sold.

Controversy with Gas Company

W. B. R., Ohio, asks: "My farm is leased to a gas company at a small rental, about one eighth the price of a well. They also have adjoining farms leased with producing wells close to my line, thus draining me of gas. Is there any law in Ohio to protect me from being robbed of my gas? As they have drilled within

a few feet of my line, can I compel them to put down a well on my farm, also?"

In the first place permit me to say that it is almost impossible to give a reliable answer to a query of the above kind, without knowing all the conditions of the lease between the parties; but, generally speaking, I know of no law in Ohio that will prevent a landowner from sinking a well as close to his line as he can without actually trespassing on the lands of another, and while it seems to give room for a very great wrong, yet it is such that the parties must protect themselves in giving their leases to such companies. It may be, that under your lease you can compel him to sink wells on your land, but you should not rely upon my advice. Better consult some local attorney.

Wife's Share

L. D., Pennsylvania, inquires: "What share does a wife get of her husband's property and money that is on interest in Colorado?"

If there are no children, the wife gets all. If there are children, she gets one half.

Statute of Limitations on Promissory Note

A. B., Ohio, says "that on January 1, 1888, he and C. D. made a promissory note to E. F. for the sum of two hundred dollars, payable two years after date; that on January 1, 1900, C. D., without the knowledge or consent of A. B., made a payment of one hundred dollars on that note, and he wishes to know if the payment on said note by C. D. was such a payment as would keep the note alive as to him, and whether he would be liable on that note at this time."

Some courts in the United States would probably hold that A. B. would be bound by the payment of C. D. made on said note, and that the note will run fifteen years from the time of said last payment by C. D. But the supreme court of Ohio has held otherwise, and in one of their decisions say that a partial payment on a joint and several promissory notes by one of several makers will not prevent the running of the statute of limitations as to the other makers, and therefore I would say that A. B. cannot now be held liable on the note. Of course if A. B. had anything to do with the making of said payment that might change the matter.

Hogs in Partnership Property

C. B., Ohio—My judgment would be that it was the intention of B. and R. that when the partnership began each was to furnish one half of the hogs, or if one party had more than one half, the other party was to pay him the difference in such valuation, and thereafter the hogs were to be equally partnership property, and when sold the proceeds would be equally divided. Therefore, it seems to me that R. was entitled to one half of the money derived from the sale of the hogs, and was subject to pay to B. the difference in the valuation of the hogs B. furnished and those that R. furnished at the time the partnership went into effect.

Right of Widow to Sell Real Estate

J. H. P., New York, asks: "If a man dies without a will, leaving a wife and two children, can she sell their house before said children are of age, or can he leave everything to his wife?"

The widow would have no right to sell the house, as she has only a dower interest in it. The property subject to such dower belongs to the children. The husband could leave everything to his wife by will if he chooses so to do.

Validity of Will

C. T. C., Tennessee, writes: "My father owned a two-hundred-acre farm. He died last November, leaving a will written by a lawyer, signed by only one witness, himself and lawyer. Can the will be broken on the plea of only one witness? I am the only child. He willed me only seventy-five acres, and his grandson, only ten years of age, the remainder of the two hundred, his widow to have the use of it during her lifetime, provided she remains his widow. I have entered suit on the above-stated grounds. Will I gain the suit? If so, will I have to pay off all his debts, doctor bills, funeral expenses, etc? Will it come out of personal property or real

estate? My uncle is executor of the will and wants to make me pay off all the debts if I gain suit. Will I have to pay their lawyer fees if I gain suit?"

As a general rule in your state a will must be subscribed by the testator in presence of two witnesses. An exception to this seems to be that where the will is written and appears to be in the handwriting of the testator, and found among his papers after his death it might be probated as a will and be sufficient to convey lands if the handwriting is known by his acquaintances and proven by at least three credible witnesses. So I should think the will would be invalid. His debts will first be required to be paid out of the personal property. If that is not sufficient, then the real estate is liable therefor. The decisions are not entirely in accord as to the liability of the estate to pay attorney fees where the will is set aside—that is, the attorney fees of the executor. It would depend upon a good many other circumstances, and if the fee is a reasonable one, and there was just ground for the executor employing the attorney to fight the case, it would probably be allowed out of the estate.

Inheritance—Interest of Husband

M. G., New York, writes: "C.'s widow goes to Illinois, and marries B. B. has children, also quite an estate. C. also had an estate in New York, but no children. Does B. hold any or how much of C.'s estate, or do C.'s relatives hold any of B.'s estate?"

From the laws at my command I would say that B. merely holds a life estate in C.'s property in New York. On the death of B. it would go to C.'s father or mother, if they are living; if not, to C.'s brothers and sisters.

Contract for Entire Amount

N. N., Ohio, writes: "A. contracted with B. for four acres of tobacco, estimated at five thousand pounds, at eleven cents. Is A. bound to let B. have all over that amount at the same price, tobacco having advanced in price?"

Yes, my judgment would be that B. could hold the entire amount sold. The fact that it was estimated at five thousand pounds is merely an estimate. The idea of the contract seemed to be to sell the entire crop or bunch or whatever it may have been.

Right to Manufacture Patented Article

W. J. M., Pennsylvania, writes: "Does a person have a right to manufacture and use a patented article? What recourse has the person holding the patent to prevent people from making and using his patent?"

No one has a right to manufacture and use a patented article, and the owner of the patent of the article may bring suit and enjoin persons from so doing; or, if they persist in manufacturing the article, he could collect damages from it.

Right of Husband to Collect Note Against Wife

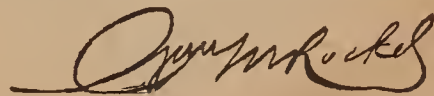
S. B. H., New York, writes: "Are the rights of a husband to collect a note against his wife legal, the same as any other person, etc., when deed was given her for property, and note taken for same?"

I understand that husband and wife in the state of New York are allowed to contract with each other and stand in the same relation as they do in reference to contracts made by other persons, and therefore would say that the note can be collected. Of course, if there was fraud or undue influence in the matter, that might possibly defeat it.

Right of Upper Owner to Cause Polluted Water and Refuse to Flow on Lower Proprietor

A. C., Ohio, writes: "A. and B. own farms on same side of road—A. on the higher land, and B. on the lower. Can A. build his barn, hog pen and water closets so the drain will run down onto B.'s land into spring used by B. for house use? In times of a freshet it runs into the spring and spoils the water, which we used long before A. came to said farm. Now he has a manure pile on the bank of the river, and that runs there, also."

No one landowner has a right to pollute waters that may flow onto the lands of another. If he so builds his buildings, stables, etc., that said pollution is drained down on the lands of another, he is responsible and the lower proprietor may go to court and have him restrained from permitting such water to flow on his premises.





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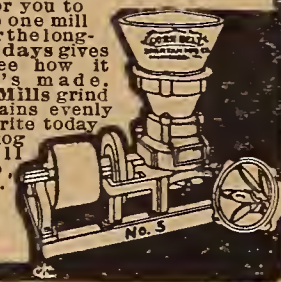
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Wit and Humor

After the Editor

A CERTAIN would-be author sent a story to an editor. A few days later it was returned to him. This nettled the would-be author, cast about for means of "getting so he even."

He was a paid-in-advance subscriber for three years, and he struck upon what he thought to be a very good idea for squaring things. Accordingly, he mailed the latest copy of the editor's publication to him; also the following:

"DEAR SIR:—I notice a rule of yours is that when you receive anything you do not want, you return it to the sender. This I believe to be a good rule. Therefore I will adopt it myself. I am sending you under separate cover the latest copy of your paper. In the future (to save trouble to me and others) you will greatly oblige by changing the address on my paper to your own.

"Yours, etc."

A few days later the would-be author was somewhat surprised at receiving the identical paper he had returned to the editor, with the following note:

"DEAR SIR:—Yours of the — inst. to hand. After examining our books, we find you are a paid-in-advance subscriber. Therefore the paper is yours, not ours. And in adhering to the rule that you yourself say is a good one, we are compelled to return the paper to you. Trusting this will be satisfactory, we beg to remain,

"Yours, etc."

This hit the would-be author pretty hard, but he was determined not to be outdone. So he again mailed the paper to the editor; also the following:

"DEAR SIR:—What you say is true. The paper belongs to me, and I think I have a right to do as I please with my own property; and as I do not want it, and you do not want it, you will do me a great favor by sending it to the biggest fool you can find. Perhaps he will not have sense enough to know, and will appreciate it.

"Respectfully, etc."

He felt sure that this would silence the editor, but he was mistaken. A few days later he again received the paper, with the following:

"DEAR SIR:—Yours of the — inst. received. In reply we beg leave to say that it is with pleasure we comply with your request.

"Yours, etc."

Geographically Located

"Where was he struck by the automobile?" asked the coroner. "At the juncture of the dorsal and cervical vertebrae," answered the surgeon. "Will you please point that out on the map?" asked the coroner, indicating one that hung on the wall.—Chicago Tribune.

An Urban Cinderella

The teacher had been reading the story of Cinderella to her class of youngsters, and was now going over the story again with them to fix it in their minds. Among other questions which she asked them was why it was necessary for Cinderella



—The Sketch.

Dusky Visitor (who has never seen a hot-water bottle before)—"I done kill dat beast, anyway."

to leave every night early enough to be home by twelve o'clock.

From various members of the class she elicited most of the reasons which are implied in the story, until finally all remained silent.

"Isn't there any other reason?" she asked. "Can't any of you think of another?"

Up shot Larry's soiled, chubby paw, in frantic eagerness to indicate his knowledge.

"That's good, Larry. What is the reason?"

"She had to ketch the last car," piped Larry.

Balked

Old farmer—"No, I don't want any more of your labor-saving machines. I've tried enough on 'em. Look in there. There's a typewritin' machine the missus spent all her egg and butter money on to buy for me, 'cause I ain't so over handy with the pen. Just look at the swindle."

Friend—"What's the matter with it?"

Old farmer—"Matter! Why, you can't even write yer name with the bloomin' thing unless ye know how to play the pianner."—Tit-Bits.

A Real Friend

"Red" Wright was a man of quick and furious temper, while Jim Donovan was as calm and unemotional as his partner was violent.

The two prospectors were cooking breakfast in their mountain camp one morning when the coffee-pot happened to be "Red's" particular charge. The bacon, under Donovan's supervision, was almost done, so "Red" set the coffee-pot on the fire for a final boil. One of the sticks burned in two and the pot upset. "Red" flew into a rage, and, jumping for the coffee-pot, he kicked it from one end of the camp to the other, and back again. Donovan watched him with calm interest, and when "Red's" fury had expended itself Donovan pulled his six-shooter and filled the coffee-pot full of holes.

"By gracious, man!" cried "Red," wringing his hands. "What did you do that for? We can't make no more coffee!"

"Do you think I'm goin' to stand here and see a son-of-a-gun of a coffee-pot get the best of a friend of mine?" demanded Donovan as he returned to his bacon.—Caroline Lockhart in Lippincott's Magazine.

An Inside Fact

How fair a world this world would be
If all our livers kept in trim,
If each man could be always free
To eat things that appeal to him!
How soon our little cares would fade,
How few of us would mourn our luck,
If each man's liver were so made
That it would never balk or buck.

The discontented soon would cease
To fret us with their doleful cries;
The sons of men would dwell in peace
Where daily squabbles now arise;
The poor would never hate the rich
And life would be a grand, sweet song,
If each man had a liver which
Performed its duty right along.

—Chicago Record-Herald.

Liberal?

An old woman went into a grocer's
and ordered a pennyworth of carrots.
After being served she inquired: "D'ye
not thrash something in wi' them?"
"Oh, yis," replied the greengrocer; "if
ye wait a minute aa'll thrash in a seck



THE RAW MATERIAL

TOMMY—"Why, you're not afraid of a
turkey, are you? You just ate one last
week."
DOROTHY—"Yes, but this one isn't
cooked."

o' titties an' a barrel o' apples, an' a
hundredweight o' turnips an' a box o'
oranges! An'," he shouted, as the old
woman flounced out of the shop, "when
aa'm busy aa'll thrash in the horse and
cart! If yor not satisfied then, come
back for the shop!"—Kansas City In-
dependent.

Wrecked Afterward

I was once summoned as a witness in
a case where an old ducky was charged
with chicken stealing. The old ducky
was on hand early, and before the case
was called the judge, observing his pres-
ence, asked his name.

"My name is Johnsing, yo' honah,"
said the ducky.

"Are you the defendant in this case?"
inquired the judge.

"No, sah," replied the ducky, "I's got
a lawyer to do my defencin'. I's de gen-
tleman what stole de chicken."

Just then a small, insignificant Irishman
hobbled in on crutches, accompanied by
his wife, a big, brawny woman.

"Judge," said she, "I want you to give
this man six months for giving me this
black eye."

"What!" exclaimed the judge, in aston-
ishment, "do you mean to say that this
physical wreck gave you that black eye?"

"Your honor," said the woman, "I want
you to understand that he was not a
physical wreck until after he gave me this
black eye."—Pacific Monthly.

Always

Chairman of campaign committee (be-
fore the election)—"From reports which
we have received, and which are abso-
lutely infallible, we are certain that our
candidate will be elected by a majority
of at least two hundred thousand. We
have made a careful house-to-house can-
vass of the entire state, and we know
what we are talking about."

The election results in a majority of



DRIVER—"There you go! I told pop that
collar was too big for this donkey."

ten thousand for the candidate mentioned
above.

Chairman (after the election)—"The
result of the campaign was just as I
predicted, and meets our most sanguine
expectations. It is a great triumph for
dignity and purity in politics."

Pennib's Great Raise

"Mr. Richly," began Pennib the book-
keeper as he entered his employer's
office on New Year's morning, "I have
called to see why my salary has not been
increased this year."

"Why—why, hasn't it, my boy?" nerv-
ously asked the head of the firm.

"No, sir; it has not," firmly replied
Pennib. "I have been with you now for
some years, and I think you will admit
that it would be a difficult matter to fill
my place."

"D-don't leave us, my dear boy!"

"Well, that of course depends entirely
upon yourself. I don't want to put the
firm out of business when it is doing so
well, but I must consider myself, you
know."

"That's very true, Mr. Pennib, and we
also must consider you. Let me see;
your salary is fourteen dollars per week,
is it not?"

"Yes, sir; only fourteen dollars per
week."

"Gracious! what an oversight! Why,
you are worth fifty dollars, and your
salary shall at once be increased to that
amount, and"—

But just here Pennib's alarm-clock
went off, and a few hours later, when he
tremblingly entered Mr. Richly's office to
ask for an increase of one dollar, he
choked up so that he could only mumble
a "good-morning" and make a hasty
exit.—Judge.

Something Excellent for Lunch

"At luncheon I had something which
was excellent but not substantial."
"What was it?"

"An excellent appetite."—Il Diavolo
Rosa.

The Common Lot

SMITH—"It's no use. I'm up against it!"

SMYTHE—"What's the matter now?"

SMITH—"Well, you know, about a
month ago I told you I had worked a
scheme on my wife by buying a safety
razor. I used to shave myself with the
old, regulation, straight blade; but about
once a week I would find that my better,
but thoughtless, half had used my razor
to sharpen a pencil with or rip up an
old dress, or something else of that sort.
Finally, I gave up in despair and resorted
to the safety."

SMYTHE—"Yes, you told me."

SMITH—"I also crowded over the fact
that I had her foul. There wasn't any
conceivable use, according to my blatant
tongue, that she could put a safety razor to.
Isn't that what I said?"

SMYTHE—"Yes, that's right."

SMITH—"Well, I lied. See those seven-
teen scratches on my cheek? Well, I
started to shave last night in a hurry, and



MRS. SUBURBS—"Henry, I wouldn't go to
town to-day, in all this storm."

MR. SUBURBS (Undecidedly)—"H'm, I
don't know. I believe I will."

MRS. SUBURBS—"You could stay around
home here and clear off the porches and
shovel off the walks."

MR. SUBURBS (decidedly)—"I don't know.
I believe I'll go to town."

they are the result of my first and only
stroke. What do you suppose she con-
fessed to having been doing with it?"

SMYTHE—"Give it up."

SMITH—"Trimming off the hair from
those rat things that women put in their
hair. And when I kicked, she got sore,
and said she wouldn't have a razor that
wouldn't cut hair. Gad!"—Pacific
Monthly.

Bubbles

A glowing account—fire news.

The first-class printer has ample
proofs.

The successful lover has many a piece
of good luck.

When the housewife puts pies in the
oven it's a home thrust.

Some people go to the hair-bleacher's
with a dyeing request.

The timid man seems to give others a
standing offer to sit down on him.

The editor doesn't mean a barrel
when he calls for a double-headed ar-
ticle.

It doesn't take the pickpocket long to
get his hand in.

The official bouncer says he belongs to
the fire department.

Most barbers have to face some rough
customers.—Philadelphia Bulletin.

That Nickel Saved His Life

When Doctor Briggs arrived at the
Meachem house he found his patient in
a comatose condition, which made neces-
sary several hours of restorative labor.

"Now how did this happen?" he de-
manded of Mrs. Meachem when the trou-
ble was over. "Did you give him the
powder I left?"

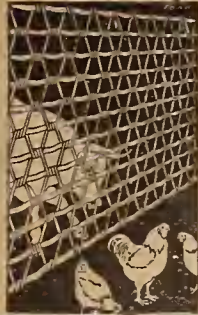
"Yes, sir."

"As much as would go on a dime—
and no more?"

"Yes, sir. That is, we couldn't find a
dime, so I shook a nickel and five pennies
out of Willie's bank and gave him just
what they would carry."

"It's lucky the nickel was there, so
that you didn't have to use five more cop-
pers," remarked the doctor, dryly.—
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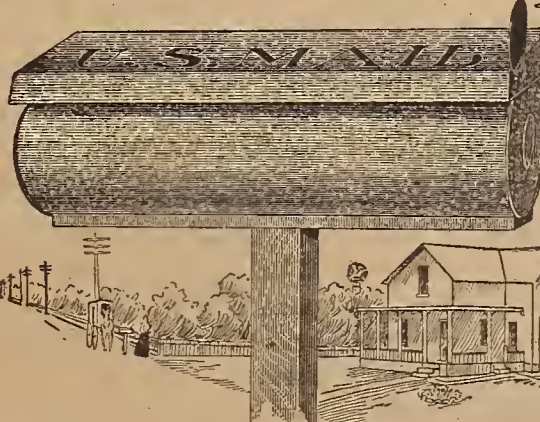
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It is large and roomy, rainproof, eighteen inches long by six inches in diameter, which makes it capable
of holding quantities of newspapers, packages, letters, etc.
It is so built that the wind or storm cannot remove the cover or find its way inside.
It is nicely finished, and is so arranged that a lock can be put on if necessary.
Has red painted signal attached, which shows plainly when mail is in the box, and is invisible when the
box is empty.
It is most simple in operation, and one of the most satisfactory mail boxes on the market at so low a price.
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quickly set up.

REMEMBER, we pay shipping charges on this mail box to all points east of the Rocky Mountains
only. To other points receiver pays charges.

FREE The above mail box will be given free for a club of
only twelve yearly subscriptions to Farm and Fireside
at 25 cents each. Receiver pays shipping charges.
Send all orders to FARM AND FIRESIDE, Springfield, Ohio

HERE THEY ARE!!

"Surprise" and "Beauty," "Fuzzy" and "Wuzzy," the four magnificent blue-ribbon prize ponies that will be given away absolutely free in the great Four-Pony Contest that FARM AND FIRESIDE is just starting.

Never before have such beautiful ponies been offered as prizes, and never have so many ponies been offered in a prize contest. These ponies are the best that could be purchased at the oldest reliable pony farm in the United States. They are the finest specimens of the Shetland pony to be found anywhere in America.

A Beautiful Pony Team

"Surprise" and "Beauty" are undoubtedly among the most handsome pony teams in the country. They are dark bay geldings, each about forty-four inches high. These ponies, as well as "Fuzzy" and "Wuzzy," are guaranteed absolutely sound subject to veterinary examination. Both of them are well-educated little fellows and just as clever and intelligent as can be. They are broken both to ride and drive, and any boy or girl is perfectly safe with them, because they are as gentle as kittens. Lots of people are anxious to buy "Surprise" and "Beauty," but they are not for sale now. FARM AND FIRESIDE has already bought them to give to some boy or girl who is willing to do FARM AND FIRESIDE a favor in spare hours. We are going to give "Surprise" and "Beauty" to some boy or girl free of all charge, and they will be sent by express right to their door. With them we shall also give free a beautiful pony wagon and handsome nickel-plated double harness. A prettier pony outfit you never saw in all your life. It is perfectly stunning and it would do your heart good just to see it all. "Surprise" and "Beauty" will be given as first prize in the Four-Pony Contest.



"SURPRISE" and "BEAUTY"—Matched team, wagon and harness, for the winner of the first prize. From the George Arnett Pony Farm, Springfield, Ohio.



"FUZZY"—One of the handsomest Shetland ponies in America. "Fuzzy" will be given absolutely free, with cart and nickel-plated harness, to the winner of the second prize in Farm and Fireside's Four-Pony Contest.

This Pony is Yours

almost for the asking. "Fuzzy" is the pony's name, and it is going to be given with a handsome pony cart and nickel-plated harness to the boy or girl who wins second prize in FARM AND FIRESIDE's Four-Pony Contest. Just below is "Wuzzy," another blue-blooded little Shetland beauty. "Wuzzy" will be given with saddle and bridle complete (all except the little boy and girls) to the winner of the third prize. All these ponies are guaranteed sound and gentle in every way. If "Fuzzy" and "Wuzzy" were matched as a team they would be just as valuable as "Surprise" and "Beauty," for they are mighty handsome little animals. The pictures do not do the ponies half justice, for the ponies are shown with their heavy winter coats on. From early spring to late fall, with their light coats, they are as pretty as you could wish, and all young, too, being only three to five years old.

LET US SEND YOU "SURPRISE" AND "BEAUTY"

or "Fuzzy" or "Wuzzy." Isn't a handsome little Shetland, such as these are, just what you always wanted? Wouldn't you like to have a beautiful pony team, or even a single pony, so that you could take your friends out for a drive whenever you wanted to? Just think of the joy of owning this matchless little team, "Surprise" and "Beauty!" Imagine how proud you would be and how all your friends would envy you. You can have them all for your own, without a cent of cost to you, too. Wouldn't you like to be where the little boy and girls below are? You can be there just as well as not, and on your own pony, too, if you will just *hustle up* and

Get in the Saddle!

PRIZES FOR EVERY ONE is the motto of this great Four-Pony Contest. And in order to carry this out we shall not only give away four ponies, but a magnificent new \$750 Harrington piano, a \$650 Sturdy Northern Automobile (new) and Grand Prizes galore! We have not told you one tenth of what we are going to give away. Really, no contest ever conducted by a reliable paper has approached this great Four-Pony Contest of FARM AND FIRESIDE's in the value, number and magnificence of its prizes. Absolutely every contestant will get a valuable prize.

Don't delay a minute! There is a lot more to find out about this contest yet. Just send us your name and address on a postal card and ask us about the ponies. We will tell you by return mail exactly how to win the pony team, or the piano, or the automobile—you can take your choice. Now don't wait, but write us to-day. We will save a place for you in the contest if you do not delay!

Address,

FARM AND FIRESIDE



"WUZZY"—This famous little Shetland will be given with saddle and bridle complete, all except the little boy and girls to the winner of the third prize in Farm and Fireside's Four-Pony Contest.

SPRINGFIELD, OHIO

The Strange Adventures of
Helen Mortimer

[CONTINUED FROM PAGE 14]

"Barrington! Who is that?" she said. "Tell me everything from the very beginning, and try not to forget the smallest detail, for it is the seemingly insignificant things that often help the most."

"It was not likely I should forget anything of those awful days, for every incident is indelibly stamped upon my memory, and I recounted them all just as I have written them to you, while she listened without comment, save now and then a question which revealed how cleverly she was following and comprehending every move of those wretches, and the object they had in view."

"My heavens!" she exclaimed, when I had finished, "you have had a hard time, poor girl! If I had had any suspicion that you would have been so menaced on the ship, I never should have let you go alone. But I thought it was perfectly safe, and that I had put them off the track by remaining in New York. I can't understand how they learned you were in any way connected with me. Of course, that telegram of mine gave them the clue to the trunk, but how did they discover, in the first place, that you were associated with me?"

"I can't tell," I replied. "I certainly said nothing to any one outside of my two friends, and that was as safe as it was with you. Besides, they had no more suspicion than I that there was anything in the trunk save things of private value to you."

"She looked at me quickly, with a sudden gleam of fear, and said, 'Do you know what was in it?'"

"No," I returned, "I don't, but evidently it contained something of importance to others beside yourself."

"She appeared relieved, and said slowly, 'I can't understand it! We took such precautions, it seemed—What have you done with those letters of Barrington's? Did you bring them with you, or—Don't tell me they were stolen from your desk, yesterday, by that woman!'"

"No, they were not there, fortunately. I tell you, I left them in the Oakley Street house."

"You mean you did not go back for them? Oh, that was criminal!"

"How could I?" I returned. "They asked me to leave the house. They certainly would not have allowed me to return and rummage through the room, especially after my things had been taken away."

"She was silent a moment, then said, 'You say they were hidden on top of a wardrobe?'"

"Yes, I placed them there under Barrington's coat, fearing he might send some one to claim them."

"Do you think they could be there still?"

"I think it is very likely. The wardrobe is a very high, old-fashioned affair, and no one could possibly suspect anything is there, unless the wardrobe should be moved. The dust was so thick on top, I am sure no one has looked up there for years."

"I must go there. I must have those papers!" she said. "They may give me a clue as to who this Barrington is, and where he may be found. Evidently, as they were so anxious to get them back, they contain some important information." Then she suddenly exclaimed, "Ah! do you know, I have a suspicion! That woman yesterday was probably looking for them when she opened your desk!"

"I told her this idea had also occurred to me, and that I believed it must have been some one connected with Barrington—perhaps that Mrs. Morris, alias Madame Patrie, who searched me while I was imprisoned during the fog."

"What did she look like?" asked Mrs. Pancoast thoughtfully; and when I had described her, she said, "I see now the whole thing clearly. You know, I put that notice addressed to you in the paper twice; and the first time I made several visits to the 'Times' office without receiving any reply. After inserting it again, I learned, on calling at the office, that a woman answering to your description of Madame Patrie had come there, and claimed a letter that had arrived in answer to my notice. Fortunately, that Mrs. Campbell, or whatever her name is, who answered the notice from the house where you were stopping in London, had had the good sense to write again, to give me your address here in Paris, which she had apparently omitted to do in her first letter. I had the greatest difficulty to get the letter, and only succeeded in proving my right to it by being identified by the man with whom I had transacted the matter of inserting the notice."

"Now, that woman must have been aiming to prevent my tracing you, and thinking she had done so, by securing Mrs. Campbell's first letter in reply to the notice, and believing there would be no other, must have gone to Mrs. Campbell to obtain your address here, in order to make another effort to get those letters from you, which further investigations have probably given them reason to believe are in your possession."

"But what could make them believe such a thing?" I said. "They searched through all my things, and made inquiries at the house, and were confident that I hadn't them."

"I know; but they may have found the coachman you had that night, or the man who carried your luggage into the house, and he may have noticed that you wore your coat, and carried a man's coat on your arm. It is obvious those letters are of vital importance to them, and they wish to keep you and me apart until they secure them."

"But they must have learned from Mrs. Campbell that she had sent you my address," I suggested; at which she looked grave, and said, "Yes, that is so! Heavens! It is strange they did not trap you again before you reached me! But of course they could not know you were leaving Madame Durrozi's. This puts new danger in our path; they will track us like wolves! They are

the most diabolical and clever wretches I have ever known of."

"Why do you not put the whole matter in the hands of detectives?" I asked. "That is the only way you will ever be able to trace your trunk."

"And she said, 'No, that is impossible. There are reasons why I can't do it; I shall have to fight it out myself. If I can get hold of those letters, they will probably help me, and I appreciate very much your courage and loyalty in not giving them up.'"

"I think this was pretty nice of her to say, don't you? For, after all, she could have been nasty, and blamed me for the entire complication. And really, in spite of her mysterious behavior in relation to the trunk, and her evident objection to appeal to the authorities for aid in the matter, I like her. She showed so much sympathy when she heard how I had been misjudged for that affair at the Oakley Street house, and has been in a way kinder than any one I have yet met during this turbulent time, except perhaps Halifax; but even he has turned against me now!"

"Can you remember anything in those letters of Barrington's?" she asked presently. "I considered a moment, trying in vain to recall them, although at one time I knew them by heart."

"Can you remember any name they contained?" she asked to help me, after waiting while I pondered.

"There were two christian names mentioned," I returned; "Harry and Oscar, but I can't remember—"

"Oscar!" she exclaimed. "Ah! what was said about him?"

"I can't remember," I said, for my brain was clouded by all the distracting events I had passed through.

"Can't you recall even vaguely to what the letters referred?" she queried quite gently. "Were they business letters or friendly, or what?"

"They were all typewritten," I returned.

"One was long and evidently a business letter; another was in reference to some ill person, for it contained only medical directions; the third was apparently from some intimate friend. There were two initials signed to one—W. E.—or, I don't remember; but it was in that letter that Oscar was mentioned, and also some strange, unintelligible directions about a place here in Paris."

"What sort of directions?" she asked; and when I described, as well as I could remember, what the letter had contained, she leaned toward me excitedly, and said, "Was it in reference to a private house, do you think?"

"I don't know," I replied. "It was an address on the Champs Elysées!"

"Champs Elysées!" she exclaimed. "Was it number forty?"

"Yes, I think it was—I am sure it was," I returned; and with that she sprang out of bed, saying hurriedly, "I must dress at once! I must go there! Will you come? Will you—She broke off abruptly, and looked at me critically. 'You are about my height, aren't you?' she said. 'Slighter, but—'"

"She went to a trunk, lifted the tray out, and dragged a number of gowns from under it. 'Here,' she said, 'this will fit you. Put it on, and this hat and veil. You must not be recognized, if any of those people should be on our track; and very likely they are, as that woman you call Madame Patrie is in Paris; they will stop at nothing, and we must be prepared for them, and be continually on the watch.'"

"Well, my dears, I assumed my disguise and prepared again to enter into this vortex of mystery and danger—not timidly, as I had before, but with keen eagerness to have my thoughts diverted from the shame and sorrow of my shattered romance."

"When I was arrayed in a skirt and long coat of Mrs. P.'s, a violet hat tilted over my nose, and a thick veil that made it difficult for me to see, my appearance was so changed that I could have walked in upon you two and you would not have recognized me unless I spoke. It was most exciting, for I hadn't the slightest idea what Mrs. Pancoast intended to do, and I did not care. The interest of the thing made me forget all my own worries, and indeed even my affair with Lawson appeared trivial before the menace of new difficulties, which held no terror for me, since I was not to be alone, but rather interest and attraction. Mrs. Pancoast may be under a cloud, and even unprincipled, but she is a very agreeable companion, and very refined in her speech and thoughts. She is also clever; she takes a philosophic view of everything, and sees the comical side of situations that would depress most people. When I told her I had spent sixty of the hundred dollars she had given me, and had the other forty stolen from me, she said, 'What a pity you were so saving! If you had spent the forty in seeing the theaters and getting some amusement, I should have felt better about it.' And when she heard the price that woman on Oakley Street charged me for the damage I did with the pistol, she laughed until the tears came, and said, 'How I wish I could have been there to see you! It must have been a comical sight, you sitting up in bed firing for dear life, and not caring a fig what you hit! The old skin-flint should have been glad you didn't put a bullet in her!'"

"I wish I were endowed with a temperament like hers; it must be lovely to take things as lightly as she does. But I suppose it comes with experience, for even now I am not affected as deeply as I used to be by troubles, and am beginning to believe it is only people who have not suffered very much who take life so tragically."

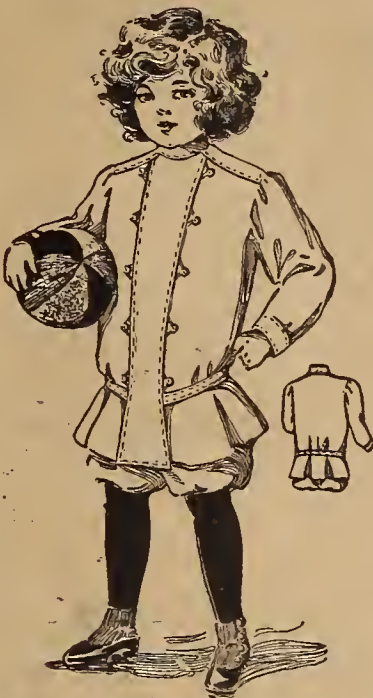
"Well, when we were both ready, we went down stairs, and she sent a boy to call a closed cab, and as we hurried into it—for she is constantly aiming to avoid any one who may be watching for us—she gave the address 'Forty Champs Elysées.'"

[TO BE CONTINUED NEXT ISSUE]

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Agricultural News-Notes

It is an encouraging fact for wheat growers that the use for domestic consumption increased over forty per cent between 1869 and 1906, while the population increased less than thirty per cent in the same period.

Accurate agricultural statistics serve as a regulator of market prices throughout the world. They tend in a great degree to prevent the cornering of one or more of our staple agricultural products.

The new pure-food law is likely to increase the production of macaroni or durum-wheat products in the United States, as these cannot be sold now as heretofore under counterfeit foreign labels.

The sale of twelve thousand pounds of tea which was grown near Charleston, South Carolina, in 1906 was begun on December 11th. It is the first crop of American tea grown on a commercial scale.

The growers of durum wheat in the Northwest are likely to be favored by the shortage of the hard spring-wheat crop in Russia. That country usually exports large amounts of the product to southern France and Italy.

The South is not alone in need of caution in the matter of diversifying crops. From present indications the wheat crop of the United States in 1907 will be at least five million bushels greater than that of 1906.

A five-acre tract of citrons near Sycamore, Illinois, yielded about ninety tons, for which a ready market was found at ten dollars a ton. The 1907 crop in that locality will be largely increased.

Even if the cost of putting the pure-food law into operation the first year amounts to two hundred and fifty thousand dollars, as estimated by the Department of Agriculture, it will be money well and wisely spent for the better protection of the American public.

Thirty million tons of cotton stalks are annually produced in the cotton-growing states. The Cotton Stalks Products Company are now erecting suitable works in Philadelphia to convert a large quantity into paper, denatured alcohol, acetone, smokeless gunpowder, celluloid and kindred products.

The 1906 apple crop of this country is estimated at 36,120,000 barrels, which is 12,625,000 barrels more than the 1905 crop. Owing, however, to the increased number of cold-storage houses, coupled with the fact that there is a brisk foreign demand, relatively high prices are likely to be obtained, the size of the crop being considered.

The Jamestown Ter-Centennial Exposition is located on Hampton Roads at the mouth of James River in Virginia. Four hundred acres of land and forty acres of water space will be occupied. The various states are each erecting buildings near the water front. The date of opening will be April 26, 1907, and of closing will be November 30th.

Water Resources of Ohio

To a large number of the two millions or more people whose homes dot the fertile valleys that border the Sandusky, Muskingum, Maumee and Miami rivers, the water supply, the quality of the water and the industrial development of the water resources are matters of intense interest. Information concerning the general character of the available waters is eagerly sought, and it is but natural that reports on the subject should be in great demand, especially those resulting from the careful and systematic investigations made by the state and the federal governments.

A report of this character is that prepared by Benjamin H. and Margaret S. Flynn published for free distribution, by the United States Geological Survey, as Water Supply and Irrigation Paper No. 91. This paper treats of the natural features and the economic development of the four principal drainage areas of Ohio, and contains valuable data as to the flow of the streams and the natural advantages they offer in connection with water power and domestic water supply. The chapter dealing with the early history of the water powers and their general relations to the canal systems of the state is of special interest, as is also that which discusses the public water systems of the cities and urban towns. The information in regard to the sources, equipment and value of the public supplies installed during the latter part of the last century is unusually complete.

How many times during a year would you be willing to pay 5 cents an hour for a reliable power?

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switch, open the fuel valve, give the flywheel a turn or two by hand, and off it goes, working—ready to help in a hundred ways.

Stop and think how many times you could have used such convenient power last week, for instance.

There should be a gasoline engine on every farm. Whether it shall be an I. H. C. or some other engine on your farm is for you to decide, but it will pay you well to learn of the simple construction of I. H. C. gasoline engines before you buy. It will pay you to find out how easily they are operated, how little trouble they give, how economical in the use of fuel, how much power they will furnish, how strong and durable they are.

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I sell my paint direct from my factory to user—you pay no dealer or middleman profits.

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I guarantee, under \$100 Cash Forfeit, that the paint I am offering you does not contain water, benzine, whiting, or barytes—and that my Oil is pure, old-fashioned linseed oil and contains absolutely no foreign substance whatever.

I guarantee the freight on six gallons or over. My paint is so good that I make this wonderfully fair test offer.

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every detail, you can return the remainder of your order and the two gallons will not cost you one penny.

No other paint manufacturer ever made such a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

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For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo. I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8-year guarantee.

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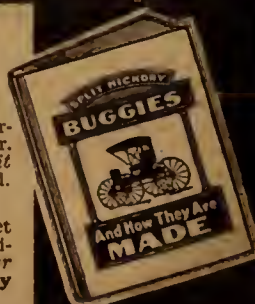
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Evergreen Protection for Farm Homes

WHEN I arose one morning last January I found the whole country covered with a sheet of ice. Some of the plum trees were broken down, while apple, pear and cherry trees were so bent over that I wondered how they stood the strain. The spruces and cedars were monuments of ice, the cedars drooping like weeping willows. Our telephone wire was broken, and those on the poles along the road hung like great white ropes, and some of the poles were bent over with their load.

The first thing I did was to get a piece of baling wire and firmly connect the two ends of our telephone wire, hang it over the branch of a tree and get into communication with the village. Then, as it was still raining and freezing, I drew a chair by the window and waited to see everything go down flat. But in a few hours the weather moderated and the trees began to shed their loads of ice and were safe. It seemed wonderful how the spruces could stand up so well under their great loads; but not a branch or twig broke.

A few days later we had a severe, biting cold wind from the west, and at night almost a tornado. The first was hardly noticed by any one about the house or yards, so well protected were they by the spruce windbreak shown in the illustration, while the latter made a terrific roar, but did not even tip over an empty barrel standing in the yard. My wife called up a friend living in a house exposed to the full force of the wind, and asked what they were doing. "Sitting here scared half to death!" came the reply. "Our house is rocking awfully. Don't you know there is a hurricane on?" Wife said the wind certainly was making considerable noise among the trees, but she had not noticed that there was anything extraordinary going on. She called up several people who live in houses unprotected by trees or evergreens, and all were frightened and declared it was the worst windstorm in years.

A few days later I took a photograph of the row of evergreens that protects our house from the furious western winds that sometimes sweep across the country. It is Norway spruce, with a few arbor-vitæ mixed in, and is about twenty feet high. Money could not buy it. The apple tree in the foreground is a Yellow Transparent. The other photograph is the arbor-vitæ hedge that separates my kitchen garden from the lawn, and also protects the garden from the sweeping, drying southwest winds that sometimes are strong enough to blow the soil from about the roots of small plants and whip them to a frazzle in a short time. I trim this every spring to keep it within bounds, and it has become so dense that no wind can penetrate it. For protecting the garden from hard winds it is equal to a stone wall. Its roots do not extend far out, and plants will grow well quite close to it.

SUITABLE TREES FOR WINDBREAKS

I have written a good deal about evergreen protection for farm homes and yards, and I still feel that I cannot say too much in their favor. In my locality Norway spruce seems to be the most suitable tree for windbreaks, and it makes a good one and no mistake. In sections where it does not succeed well there are other kinds that do, and every farmer can grow a first-class windbreak if he will. On the open prairies of some of the Western states planters have

found it necessary to give them some sort of protection until they reach a height of two to four feet, and cottonwood, soft maple and willow have successfully been used for that purpose, three or four closely planted rows being

much; but a single row a short distance from the house makes an additional protection from hard, cold winds, that will repay its cost every year in comfort to those in the house, and in fuel bills, to say nothing about the protection it af-



WINDBREAK OF NORWAY SPRUCE AND ARBOR-VITÆ

set to windward of the evergreens and the latter planted after the former have grown to a height of six to eight feet.

If I were a young man just located on a farm in any of the Western states I would lose no time in getting a good

fords to outside things. Wife can hang her washing out safely, no matter how hard the wind is blowing, while her neighbors must keep theirs within doors or lose it. One man writes me that he lives on a bleak hill in Iowa, and that



ARBOR-VITÆ HEDGE

double row of the kind of evergreens that thrive best in the section started. I would plant them on the west and north sides of the house and yards, and at least one row on the south. If a grove of deciduous trees were planted to the north or west of the house the evergreens would not be needed so

he has not only made it habitable, but really comfortable with trees. He says:

A PROFITABLE EXPERIENCE

"The man I bought from built the house on this hill, and after living in it one winter I decided to sell to the first man that would make me a reasonable

offer. Just before spring opened I read one of your articles urging farmers to plant windbreaks. That set me to thinking, and before I quit I had an order in the hands of an Iowa nurseryman for three thousand seedlings.

"I ran six rows around the west and north sides of the house and yards, and also far enough on the south to cut off the southwest winds. I made the mistake of getting the rows too near the buildings, but I have another good belt outside of this one, and it is coming on rapidly, and as soon as the trees are well up I will make posts and firewood of the first plantings.

"I kept the first planting well cultivated, and they grew like weeds, and the third winter they began to show what they were going to do for us. They are now eleven years old, and with the nine-year-old belt beyond them they make a dandy windbreak. It is quite as comfortable on this hill in winter as in a grove of natural timber. A brother living farther east in the state planted a double row of arbor-vitæ and one of red cedars for a break, and it is a fine one. He sowed his lawn to blue grass several times, but was unable to get a stand until those trees got about ten feet high. Now he has a perfect sod. He said it started next the trees and gradually crawled out until it covered the lawn. When I cut out my first planting I shall put in cedars or arbor-vitæ in its place. I am trying a few, and they are doing well. The man who has no tree windbreak between his home and the west, southwest and north winds is missing something worth living for. Instead of great drifts piled about the buildings and yards the snow lies level, and I have no trouble at all with it. There are sometimes drifts five feet deep in the outer belt of trees, but it stops there. Instead of the coldest dwelling place in this locality I now have about the most comfortable."

GROW TREES FOR COMFORT

Thousands of farmers are living in wind-swept houses, shivering through the winter and burning more coal, and feeding their animals more corn to keep them warm each winter, than would buy enough trees to plant a deep belt that would protect them as long as they live. I have seen farmers go plunging through great drifts of snow about their yards, feeding animals so coated with snow that one could not say what color they were, and dig drifts out of their pig pens to make a place to feed the shivering animals, and work for hours brushing and currying snow and ice off the backs of their horses and cows, and take it all as an unpreventable calamity. I have been in other farm yards that were protected by trees, and while the wind howled overhead the snow lay almost level, and the animals seemed quite comfortable in their stables and sheds, no snow sifting through tiny chinks and filling their bedding or covering them with a coat of ice; and though the temperature was under zero, one could get about quite comfortably, while just beyond the belt of trees one was obliged to have his face entirely covered over to prevent being frosted.

THE PLANTING SEASON IS NEAR

The planting season is not far away, and I want to again urge all whose homes and stock yards are exposed to the fury of winter storms and hot summer winds to get the trees—seedlings or

[CONCLUDED ON PAGE 2]

WHAT KIND OF A TENANT HAVE YOU?

Fairness Between Landlord and Tenant

DID you ever hear the above question asked by one man who rents his farm, when talking with another? I doubt whether two farmers who have come to the point when they feel that they must rent their places can be together half an hour and these words not be spoken.

"What sort of a man have you on your farm this year?"

I like to hear the answer come back, in good, round, ringing tones:

"Good! He is the best man I know of anywhere! Faithful and honest, true as the day is long. He looks after my interests just as well as I would myself."

And that is just about what I did hear a farmer say of his tenant this very morning.

"He has done the fair thing always. If he buys a cow, he buys her as if he were buying her for himself. Everything else accordingly."

Now, that is fine. I wish we all had men like that. More times, though, there is a look of disappointment in the eyes of the farmer of whom the question is asked. Things are not going right somehow. There has been some difference of opinion. One side or the other feels as if his rights had somehow been infringed upon, and trouble is brewing. The storm will break after a little.

But there are one or two ground principles that underly this whole matter of constant agreement between farmer and tenant. They are not so many that they may not be easily mastered, nor are they so severe that all may not comply with them. I speak from some little experience. In the course of several years' experience on the farm I have been called upon to draw up leases between a good many farm owners and the men they took as tenants. I have learned that there is as much difference between men as there is between anybody else, as the old lady said. One man will insist on a contract that takes two or three sheets of paper and half a day of steady writing, and waiting for details to be settled which should have been agreed upon beforehand. Another will care for but little, and that little will be right to the point.

May I set down here the first principle that lies at the bottom of all successful dealings between landlord and tenant? The one word "fairness" covers it all. Fairness on the part of both parties to the lease is an essential. If the farmer can think of himself as being over in the other man's place, and the tenant can do the same, and then if both are willing to do as well as they know, there will not be likely to be much clashing. There may be differences of opinion on matters that come up—we do not always think and see alike on these things—but if there is a spirit of fairness, these will all work out right in the end.

And then one other principle, the living up to which will tend toward harmonious relations between man and man, is for each to study the interests of the other, as well as those which appeal particularly to self. This is a splendid thing. What made the community of interests that characterized the actions of the early Christians so successful was the inclination—yes, the determination—of each to sink his personal good in the good of the whole. Paul could not have given better advice to any set of men than he did when he told the early disciples not to think all the time about their own things, but to think about the things of others. There lies the secret of all true good government. When the time comes that employer and employed will do that—give just as much attention to the other man as he does to self—there will be no more strikes, no more lawsuits, no more bitter feeling between man and man.

That would be an ideal relation! We never will see it! Well, now, I believe we will. Men are coming more and more to see that when they look out for the good of the other fellow, they are doing themselves a good turn, too. Placing it on the very lowest possible basis—the basis of self-interest—then, there is reason to believe that there is a steady advance in the direction of golden-rule-ism. When it comes to the higher plane, surely there ought to be a reaching out after the common good.

What, then, will the fair-minded landlord do when it comes to making a contract for the renting of his farm? I think he will be willing to give, as well as take. He will want his tenant to do well for himself, so that he may be contented and satisfied, willing to stay right on a long term of years. That is best for all concerned. Frequent changes certainly are detrimental to both parties. And then, he will not be determined always to stand for his rights. This thing of standing up for one's rights always and everywhere is the bane of happiness. Compromises there must be if there is to

be peace of mind. No man is always right all the time. Few are always wrong. There is middle ground everywhere.

And on his part what shall the tenant be ready to do? What but to carry on the work of the farm just as nearly as he would if it were his own. That is what it is for the time being. So long as he lives up to his part of the agreement he is to all intents and purposes master of the farm. If he is a farmer worthy of the name; he will do his very best to make the farm better and better every year, because it will be for his benefit to do it, and also because it will be for the good of the man who has entrusted his home to his keeping.

It is a splendid thing when a tenant says of the owner of the farm upon which he lives:

"He is the best man I ever had anything to do with."

It is also just as fine when the owner of the farm can say of his tenant:

"He is a good man. I can trust him to do the right thing every time."

I believe there are many farms where the conditions are thus ideal. There will be more and more as we come nearer and nearer to being the ideal men we want to be.

EDGAR L. VINCENT.

THE FARM SIGN BOARD

In Columbia County, Georgia, there is one of the most novel sign boards imaginable. Still the good that has been done and is now being accomplished makes it worthy of emulation by other farmers in other sections. The board is simple, yet well painted, and it bears the inscription:

SPRINGDALE FARM

L. E. BLANCHARD, General Manager.

W. L. ROBINSON, Superintendent.

Plenty of Work and Good Homes for All Who Will Avail Themselves of Opportunity. No Excuse for Idleness and Want. Apply Here.

The farm is run on the intensive plan, and no matter how much help is on the farm, there is always room for more. The buildings on the place are above those on the average plantation, and this is an inducement for workers to come to the farm. It matters not what sort of a trade a new-comer wants to make, he will be satisfied.

If he wants to rent land, it is rented to him. If he wants to work on shares, he is accommodated. If he desires to work for wages, there is also a department for that purpose. It matters not in what particular line a farmer or helper wishes to engage, there is something for him to do.

In addition to the intensive system, the diversified plan is followed, and a large number of different crops are grown on the place. The main object kept in view is to preserve the soil and at the same time instruct those on the place in better methods of farming than is usually carried on in the locality. Thus at one and the same time pleasure and profit can be derived from the work.

Some families and workers have been brought from the cities and learned the value of farming. This feature of the work could be taken up by many farmers, and it would solve the labor problem in many cases. The idea is unique and original and ought to prove a good one in most any community; and if results are the same as in the case of the farm in question, it will prove valuable.

Georgia.

J. C. McAULIFFE.

IMPROVING THE WASTE PLACES

Plant Nut-Bearing Trees

On many farms all over a large proportion of this country are gullies and untillable places where profitable timber could be successfully grown. The gully banks are usually too steep for any kind of cultivation, and many of them are stripped of all timber growth and remain a valueless waste. I have noticed this in many counties of the state of New York.

In conversation with a farmer in one of the western New York counties who had a long range of barren gully banks, I strongly recommended the planting of chestnuts upon these unsightly and useless steep inclines. He adopted my suggestion, and in a few years had a fine growth of these useful nut-bearing trees, which yielded him a handsome profit in stake timber from merely thinning out where the trees were too thick for stocky growth. Years later some of the original growth was cut out here and there, and made hundreds of excellent stakes, that were sold at a good profit. From the stumps of these cuttings clusters of new growth formed, stocky and strong, like the originals.

Of secondary satisfaction or importance were the bushels of chestnuts harvested

at one season and another and sold at an average price of about four dollars a bushel, after allowing for the stealings of bad boys, young and middle-aged, and the off years of non-production. A strong, high barbed-wire fence maintained around the banks greatly tended to lessen the speculations as time wore on.

CRANBERRY PATCHES

I have noticed marshes in some localities of this state where there was a steady sufficiency of water covering, yet where drainage could easily be had, so that practically the lands could be flushed at will. Yet these lands have lain idle from time immemorial, when very profitable cranberry crops could be grown upon them. These patches of waste land put out to cranberries would naturally produce more profit to their owners than several times over an equal area of arid land devoted to the usual crops.

New York.

MILES A. DAVIS.

THE IMPORTANCE OF RECLEANING SEED

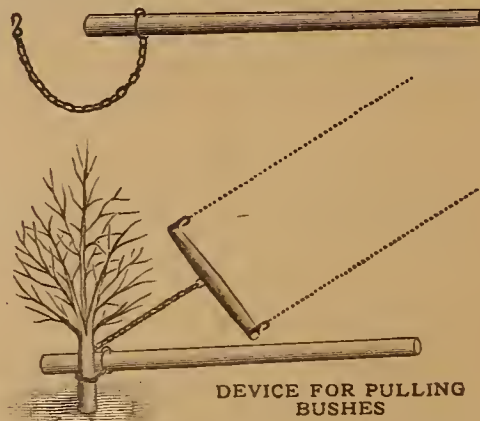
Use a Good Fanning Mill

Thousands of bushels of oats, wheat, barley, clover, etc., are sown every year just as the seed comes from the thrashing machine. Grain as it comes from the thrashing machine usually contains a myriad of divers kinds of weed seeds. Sowing seed of this kind is to form a barrier for the highest yields and well-filled grains. Small grain as it comes from the thrashing machine also contains many small, shriveled seeds. Such lack vitality, so that they will not germinate at all in unfavorable seasons. If they do grow, unfavorable weather conditions may cause many to wither and die before maturity, but after they have robbed other plants of nourishment. When soil and weather conditions are favorable, and plants of shriveled seed do ripen, they have reproduced their like and helped to "run out" the grain.

The fanning mill is the proper machine with which to reclean grain. Purchasing a cheap machine of this kind generally means purchasing a poor one. The best makes will remove wild oats and other noxious weed seeds so much better than cheap machines that they will pay for themselves in the increased yield of grain in one season.

If running the grain through the fanning mill once does not remove most of the weed seeds and small and shriveled grains, run it through again.

Just make the experiment of sowing a strip to oats that has not been recleaned and another strip beside this to seed that has been run through a fanning mill three times. The oats growing from the



DEVICE FOR PULLING BUSHES

recleaned seed will not lodge as readily as that growing from seed containing many shriveled grains. The yield from recleaned seed is increased, too, and that is what we all are working for—big yields.

Lack of time is generally given as excuse for not properly grading and recleaning seed grains. But when the farmers of England have time to pick over their seed wheat by hand, I think we American farmers should be ashamed of such an excuse.

Wisconsin.

F. A. STROHSCHMIDT.

A BUSH PULLER

A very satisfactory device for pulling bushes is made as follows: Take a tough hardwood stick about three inches in diameter at one end, tapering to two inches at the other, and of any length to suit the operator. We have found five feet in length to be very satisfactory.

On this handle slip the ring of a ring chain, and fasten with a staple. The other end of the chain is fastened to single-tree. In pulling bushes, the chain is passed around the bush on the side opposite from the operator, who holds the long end of the stick, the short end being placed over the chain, as shown in the illustration.

This device, easily made, works like a charm, and can be adjusted around a dozen bushes in the same time required to "snare" a chain around one.

Canada.

F. G. SEMPLE.

THE VALUE OF BASIC SLAG

As a Fertilizer for Grass Lands

Field experiments have demonstrated the fact that the phosphoric acid in basic slag is not confined so close and rigidly with the lime as the ordinary phosphate of lime; hence, fertilizing constituents are more easily available as plant food.

The most suitable soils for the application of basic slag are heavy, stiff clay soils, as it makes them more friable and more easily tilled. It has proved of the very greatest benefit in the improvement of poor pasture lands. An application of six hundred to one thousand pounds to the acre on second-class grass lands is quickly followed by an increase of white and red clover and a sweetening of the herbage, which is a matter that has not received the attention that it deserves in our Atlantic seaboard states, such as is accorded to it in England and Germany.

In Germany basic slag has gradually taken its place as one of the most important and valuable aids in agriculture. The Mark Lane (England) "Express" says: "The world's consumption of basic slag (Thomas phosphate) annually is about two million five hundred thousand tons. Germany using nearly one million three hundred thousand tons. The yield to the acre from grass land in Germany has increased nearly one fifth since the application of basic slag became general in that country."

Owing to the small margin of profit on each ton of basic slag, the price of which ranges from sixteen to eighteen dollars a ton, but very little has been advertised for sale. Notwithstanding the immense production in Europe, but comparatively little has found its way to the leading cities of the Atlantic seaboard. For information it will probably be best for all who wish to test the merits of basic slag to apply to the leading seedsmen in our Eastern cities, in order to ascertain the address of the importers.

Prof. William P. Brooks, director of the Hatch Experiment Station, says:

"Many thanks for calling my attention to the articles in Mark Lane 'Express.' I do not regularly see this paper. I shall be glad if you will let me know whether the amount of space devoted to agriculture is such that you think it will be valuable here."

"We have been using basic slag now for about five years on old mowings on part of our campus, which have not been broken up in some cases for more than twenty years. The character of the herbage improves from year to year. They gave two of the best crops the past season that I have ever seen on them. The proportion of both white and red clover tends to increase from year to year. The crop is large even where we have not applied anything supplying nitrogen for a considerable number of years, but an application of nitrate of soda in connection with a mixture of about five hundred pounds of slag and one hundred and fifty pounds of sulphate of potash gives a rather more profitable crop." W. M. K.

EVERGREEN PROTECTION FOR FARM HOMES

[CONTINUED FROM PAGE 1]

two or three year old trees—and plant a good break. If you are able, I would say plant evergreens—spruce, cedar, arbor-vitæ, or any evergreen that does well in your section. A single row with the trees near together will make a break like that in the illustration, which no money could buy from you. If you want a break quickly—and most people do—plant rapid-growing deciduous trees like soft maple, white or green ash, or even cottonwood.

I would plant all deciduous trees in rows five or six feet apart and about four feet apart in the row when planting a windbreak. It is a great mistake to set them too far apart. One wants a thicket, not a grove. A man who moved from a wooded section to a farm on the open prairie planted a belt of cottonwood, soft maple and green ash on the south, west and north of his buildings and yards the first spring, setting eight rows six feet apart, with the trees four feet apart in the row, and used all the manure and straw he could procure between the rows, covering the ground fully two feet deep. The trees made an average growth of six feet a year, and he had a thicket twenty feet high in a few years.

In setting a single row of Norway spruce I would procure trees eighteen inches to two feet high and set them three to four feet apart. Most planters say six to eight, but we get a solid break much quicker by planting closer. I would set arbor-vitæ three to four feet apart, using trees about two feet high. Whatever kind of trees are planted, the cultivation should be thorough the first three or four years, all grass and weeds being kept out.

FRED GRUNDY.

Teaching Modern Horticulture

What Experts Had to Say at the Recent Meeting of the Western New York Horticultural Society Held at Rochester

AT THE recent meeting of the Western New York Horticultural Society, Mr. Willis T. Mann, the noted fruit grower of the northern part of Niagara County, gave an address on

"THE BENEFITS OF A SOCIETY LIKE OURS"

He spoke of the wonderful development of the fruit industry in this region as effectively aided by the society, of the great orchards, the vineyards, the small-fruit plantations, the evaporating and canning establishment, the cold-storage houses, of the increasing number of public and private parks and lawns, and the general improvement observed in the care of lawns, and home surroundings.

Then finally, speaking of the educational influence of the society, Mr. Mann says:

"We have also been taught, during these more recent years, by precept and by the inspiration of such meetings as this, to have a more just appreciation of the value of education, and its relation to the problems of agriculture and its influence in the building of character. We have been taught to see not alone the value of our products as measured by the dollar, but to look beneath the surface of things, and to see with broader vision the realities of life.

"Dominion over the multitudinous forces of Nature has come to have a new meaning to us. We are coming to understand that the laws of Nature are but the manifestations of the divine will, and as we come to understand these laws, and apply them to the varied problems of the farm—as we use them to overcome the adverse influences that surround us, as we go on from one difficulty to another gaining new knowledge and power—we realize that we are but obeying the divine injunction to go forth, subdue the earth and have dominion."

Over eight hundred persons were in attendance at this last Rochester meeting. Undoubtedly a large proportion of them had come because they found themselves in sore distress and in need of information of the material kind. They got all that they came for, all the points about scale and other pests that trouble them, and full instructions how to overcome these enemies, but they also got vastly more. In fact, nobody can come to a meeting of this kind without being drawn into the esthetic influence of the society, for his own moral and intellectual betterment.

The more I see of these societies and these meetings, the more I am impressed with the fact of their wonderful educational influence, and I can only wonder that there are not eight thousand instead of eight hundred people clamoring for admittance. The regular attendance at the meetings of this and other societies is in my estimation not only a very fair substitute for a short course at college, but in most instances vastly superior to it.

Let me repeat that the farmer who fails to attend every meeting of this kind, whether of a horticultural society or a farmers' institute held within easy reach, and to bring his boys along, neglects one of the best and least expensive chances of securing for himself and boys the much-needed agricultural education, and is derelict to one of his foremost duties as man and father.

ORCHARD FAILURES

Dr. L. H. Bailey, dean of the College of Agriculture at Cornell University, does not concern himself so much about the small details of the soil tiller's work, but, from the high pinnacle of his position (and his fame), takes a broad and general view of the agricultural situation, and directs his forces as does a good general. He lectured on the prime causes of failure in orcharding, declaiming at the same time any intention on his part to deny that New York State can boast of great success in this line, as proven by the display of fine fruit at the exhibitions. The prime causes of failure in orcharding, as they appear to him, are not so much failure to perform some special piece of work (as pruning or spraying, etc.), as failure to organize these and many other ideas into a good system of farm management. In fact, management, and not knowledge, is the keynote to modern agriculture.

Doctor Bailey groups the failures into two classes: First, administrative or executive failures, and second, crop-practise failures.

Prominent in the first class stands lack of any really definite ideal as to what the orchard or the business is to accomplish. The manufacturer, he says, usually goes at a special problem or after a

special trade, and he is successful in proportion as he accomplishes these particular results.

Another prime cause of failure is lack of the associative or community spirit in fruit growing. Every man stands practically alone and attempts single-handed to contend with all the co-operative interests of the business world. The result is that he is a negligible factor in trade.

Doctor Bailey emphasized the present need of associative effort and of the development of what he calls "the community sense"—the idea of the community as a whole working together to achieve one result. This must be accomplished by the organization of many local societies and the co-ordination of these into larger societies, or possibly in the reverse order.

The Western New York Horticultural Society, for instance, should have a continuous working existence throughout the year, engaging in the organization of subordinate societies or clubs.

The worthy dean's ideas represent high ideals, but I can see no likelihood that they will materialize in the near future.

Chief among the crop-practise failures Doctor Bailey names lack of effective soil preparation before orchards are planted,



A COUNTRY WORKSHOP

including lack of under draining, inadequate and erroneous pruning, and lack of attention as to the grading of fruits. These faults the grower must try to remedy.

BORDEAUX INJURY TO THE APPLE

Professor Hedrick, horticulturist of the Geneva station, spoke of the mysterious effect of spraying with Bordeaux mixture as observed since 1904 on the apple, and known as spray injury, Bordeaux scald, Bordeaux injury, etc.

In some cases this injury has been so serious as to lead to the abandonment of the spraying practise. Some growers have said that more injury has been done by spraying than by the apple scab. No sure preventive has yet been found for this trouble. It has resulted from spraying with all sorts of proportions of lime and copper sulphate. Even a great excess of lime in the mixture has not prevented the injury, and at times the weaker Bordeaux mixture has given as much injury as the strongest.

The injury shows most prominently in the russet spots and blotches on the fruit. The injured portions give off moisture more easily than other parts of the fruit, and wilt sooner. The fruit keeps all right while in cold storage, but not so well when placed on the fruit stands where it is exposed to the air. Damp or cloudy weather favors the occurrence of spray injury.

The suggestions offered by Professor Hedrick were as follows:

Some varieties have been found immune from spray injury, and they may be sprayed indiscriminately. Some varieties are immune from scab, and it is not necessary to spray them. The average run of apples, however, should be sprayed, using three pounds of copper sulphate and three pounds of lime to fifty gallons of water. So far as possible, spray in dry weather. We have to run the risk. Spray injury is sometimes serious, but scab is worse.

APPLES IN BOXES

The question of best packages for apples—whether to retain the clumsy

barrel or adopt the smaller and generally more convenient box for packing, storing and shipping apples and pears—has found much consideration at recent horticultural meetings. Prof. L. B. Judson told at this meeting of his recent experience and observation in Idaho, which seems to be entirely in favor of the box package. There the boxes were much cheaper than barrels, costing only ten cents apiece in smaller and eight cents apiece in larger quantities.

The average man with an average family does not care to buy a whole barrel of apples at a time, as a large proportion of the fruit is liable to spoil before it can be consumed. The bushel box is just about right for the family buyer.

The retailer also likes the box, because he can more easily tell what the box contains, even to the number of specimens. Western Ben Davis have brought seventy-five cents to one dollar a box, Jonathans quite frequently two dollars a box, and Spitzenburg as high as two dollars and sixty-three cents.

Mr. Collingwood, of the "Rural New Yorker," had told the speaker that dealers and commission merchants in New York City often buy fruit in barrels, and have it repacked in boxes, making good profits.

Mr. Geo. T. Powell in his talk on "Varieties for the Orchard" also touched on this question of packing. He says we now have competition to meet in our own markets, especially from the Pacific Coast. The fruit coming from there is large,

place which gave five hundred pounds of cherries in 1878 (sold at eleven cents a pound), and which has been in bearing ever since, giving never less than five hundred pounds, and twice over one thousand pounds. It is a Spanish Bigarreau, and in thirty years has yielded over one thousand dollars' worth of cherries.

Mr. Britton plants Mazard stocks, and does his own budding. A tree budded by him five years ago gave half a bushel of cherries last season.

I imagine that Mr. Britton lives in a spot that is particularly favorable to cherry growing. We have raised good crops in this vicinity, too, but now and then there is a failure, and in most years we lose a large portion of the crop (or what is left by robins) from rot. This disease is especially destructive to the sweet cherries.

Mr. Britton has had some experience with it. It becomes epidemic in hot, muggy weather, especially when the sun strikes the trees still wet from a rain. His practise is to shake the water off when the rain stops and before the sun strikes the tree. How that can be done in a big cherry orchard, however, is a conundrum to me.

We sometimes have good results in preventing the spread of the rot by spraying the trees with a weak solution of copper sulphate (one fourth pound to one hundred gallons of water). This treatment has been recommended by Geo. T. Powell, but must be repeated very frequently, perhaps even daily during the critical period.

On the whole I believe that we would do well to enlarge our cherry plantations. T. GREINER.

A COUNTRY WORKSHOP

A workshop like the one shown in the accompanying illustration is something that every farmer needs and ought to have. In this kind of shop a man can make nearly all of his repairs, such as breaks on his machinery during the busy times, when he could not spare the time for a trip to town. Tire setting, horse-shoeing and wood work of all kinds can be done.

The shop is equipped with the following machinery and tools: A three-horse-power steam engine, saw table, turning lathe, grindstone and a full set of blacksmith and wood-working tools, consisting of forge, anvil, vise and post drill for wood or iron. With this set of tools one can do nearly all of his own blacksmithing. If he has had any experience in that line, he can do it all. With the saw table or wood-working machine one can do any kind of work desired, sawing to any depth, grooving, tenoning, jointing, planing, etc.

The steam engine comes handy for running the machinery in the shop, for sawing wood, cutting fodder, grinding feed, making cider, the tiresome job of turning the grindstone, etc.

For butchering, the steam engine can't be beat. One who has become used to butchering with steam will never go back to the old way with kettles. You heat your water with steam, and get a much better scald than you get the other way; besides, it is less work and saves much valuable time. A. S.

ORCHARD GRASS FOR PASTURE, SEED AND HAY

Many farmers have tried orchard grass, and found it unsatisfactory. From observations and investigations I found that we were only getting less than half the value of the crop. We would only get pasture, or maybe a little hay, so it soon gave way to other crops. There are men around me who grow orchard grass for seed, hay and pasture. Each one that I interviewed expressed satisfaction with the crop as now managed.

Saving the seed was accomplished with a binder and thrasher. The binder was set high, so as to pass over the blades. The bundles were then shocked and left until ready to thrash, when they were thrashed out of the shock. This left the blades to be cut later. Seed cutting is generally done in June. The yield is about ten bushels to the acre, and the price one dollar and a quarter a bushel at the machine, but it gets considerably higher by seeding time.

Hay making comes very late in the season. Some years as late as the middle of October. The yield is good, the quality only fair, but it is much better than some feeds that we are forced to use before spring grass brings relief. Some of these growers sowed clover with the orchard grass, thus improving the quality considerably.

Pasturing the grass may be done in the fall, winter and spring, when pasture is most needed. It is fine for colts, calves, lambs and all older stock. Orchard grass furnishes fair pasturage and plenty of it the year round if so managed. It is sown on hilly land that washes, where it serves another purpose admirably. Kentucky. E. W. JONES.

There is a fruit grower in western New York (Willis N. Britton) who raises on an average over one hundred tons of cherries a year. Growing this fruit on such an extensive scale, I imagine he is not troubling himself very much about robins, as he would hardly miss a ton or two.

He says cherries are the first fruit of the season to give him an income. Apples and peaches may bring more money, but they have cost more. Cherry trees do not ask for pruning, spraying, cultivating, etc., and will even be satisfied with a place in the public road. Germany, for instance, has avenues of cherry trees, both sweet and sour, ten, fifty, even a hundred miles long.

As an instance of what one may expect from a cherry tree under favorable circumstances, he told of one tree on his

THE DAIRY HERD

How to Develop One from Common Stock

FIRST, look for a cow with a large, long and capacious barrel, open and rather widely spaced in the ribs, which should spring well downward. Second, look for evidences of refinement as seen in a head inclining to long, a neck long and slim, crops somewhat sharp, and limbs inclining to fine. Third, look for the present evidences of good milk-giving capacity. Fourth, look for evidences of stamina as indicated by good width through the lower part of the chest, by an active carriage and a bright, full eye. Fifth, prefer the cow that has a nice soft-handling hide and silky coat.

Choose sires from that dairy breed which may be preferred. The straight dairy breeds that stand in the front in this country are the Holstein, Ayrshire, Guernsey and Jersey, named probably in the order of relative size. The Dutch Belted cattle, not very numerous, are much like the Holstein. The choice being made, don't change the breed from which the sire is chosen, and exercise great care in choosing.

The individual points of a good dairy sire cannot be given in detail here, but two of these will be mentioned, because they are in a sense indispensable. The first is the evidences of much stamina and bodily vigor. The second is an amplitude of soft skin on the under line in front of the testicles, distinctly traceable milk veins and miniature teats of good size and wide spacing.

The performance of the ancestry of the bull should be examined. The more good performers in the upward line of his ancestry, the better. Good performance on the part of ancestral dams means the giving of large quantities of milk, rich in quality and persistence in milk giving for a long period.

The successive sires should be chosen from the same breed. If chosen from another breed disturbing factors are chosen. This may not be apparent at the first, but it will be later. The antagonism likely to result cannot be explained here. By adhering to the same line of breeding the improvement should be rapid and continuous, at least for several generations, but the improvement will be less noticeable with each succeeding generation.

No matter what the line of breeding, where a high standard in dairy qualities is to be reached and maintained, there must be culling and discarding with every generation. Evidences of physical inferiority are sometimes so apparent at birth that the decision to discard such specimens may be made forthwith. As soon as it is known that the animals fall below the standard, the eye should not pity nor the hand spare.

Every man will, of course, set his own standard. If he fails to set a standard he is not likely to reach high attainment in his work. Breeds differ in their capacity to produce milk, hence high grades of these will also differ. With no breed of dairy cattle or their grades, however, should the standard be set at less than six thousand pounds of milk a year.—Prof. Thomas Shaw in the New England Homestead.

PROTEIN IN ALFALFA

Our subscribers will pardon our mentioning alfalfa again.

We believe it would be one of the most profitable crops most of our subscribers could grow.

We hope they will inform themselves thoroughly about it, how best to seed land to it and how best to utilize it, and then try it.

It can be made to yield much feed. The quantity of it commends it.

Even more does the quality of the feed it yields commend it.

Early cut, well-cured alfalfa hay is as rich in digestible protein as wheat bran.

That is certainly important when we consider that nearly all our most important, abundant feeds—corn, corn fodder, timothy hay, wheat or oats straw, etc.—are deficient in protein, and that protein is the most important, essential part of the feed, for bone and muscle cannot be made without it.—The Farmer's Call.

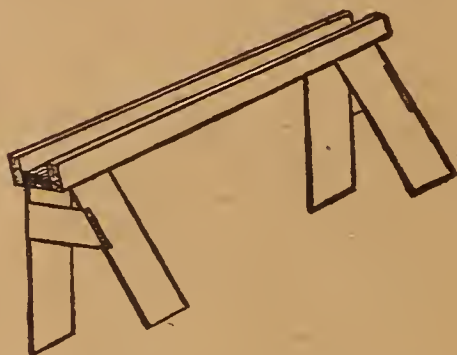
SEED CORN

Seed corn should be selected at husking time, kept out of the crib and placed in a room where it will dry out thoroughly before it gets frozen (after the seed is thoroughly dried there is no danger from freezing), and not shelled until spring. Fourteen ears will plant an acre of corn, and for every ear planted in the spring we may expect five bushels in the fall. Hence the importance of testing every ear of seed before planting, and discarding all ears which do not show a good germination. This is done by taking five kernels from each ear and placing them in a homemade germinator

for five days, having each square in the germinator correspond to an ear of corn, and religiously discarding every ear that does not show a strong, vigorous sprout. After discarding these ears the balance may be shelled separately, first shelling off and discarding the tip and butt kernels, because of the lack in uniformity of size of the kernels, which will not allow the planter to plant evenly. By shelling the ears each separately the deep and short kernels can also be kept separate, and at planting time the planter adjusted to each size kernel.—Prof. G. I. Christie.

IMPROVED "SAW HORSE"

Those who work with "saw horses" will find in the accompanying illustration an idea that will save many a tired back and considerable time as well. Instead of throwing the hammer or the saw on the ground every time one picks up another tool, they are placed in the shallow



box formed on top of the "horse" by nailing a good strip to each side of the two by four that makes the back of the saw horse. Most "horses" are made with a two by four for the back; however, a two by six would be preferable in case the "horse" was to be made as illustrated. It would then be of sufficient width to allow a saw to lie flat, as well as holding nails and other tools.—The Iowa Homestead.

RISK OF LATE PLOWING

The great mass of green material plowed under cuts off the movement of the water upward. The exposed surface quickly evaporates the water in the layer of soil above the green material, leaving nothing to germinate the seed or cause the young plants to grow as the supply from below is cut off.

This is a well-observed fact with rye plowed under. If the rye is allowed to stand well into May, and is then plowed under, it has exhausted the water supply of the top stratum of soil. Its great bulk does not pack down readily in the soil, and stays there, without rotting, until the first real wet period, with water enough to soak it thoroughly, when it decays, becomes mixed with the soil, becomes part of it, and ceases to exercise any ill effects.

It is to be admitted that in a state like Pennsylvania, with a good rainfall, there is less risk in this matter than in regions with more frequent drought.—Prof. Clinton D. Smith in The Country Gentleman.

ALFALFA ONCE MORE

Like all other farm questions, this is one that needs constant talking about. The reason is that there is such a great host of farmers who will not do the right thing if they can think of some other or cheaper way to do. About the only thought they have is to get rid of the expense and labor of doing the thing as it must be done. For instance, here is the question of seed. It will take only a minute's thought to show that poor, cheap seed is the most expensive seed a man can buy. Last spring we tested some alfalfa seed that was selling rapidly because it was cheap, and found that only twenty per cent of it would grow. Plenty of men planted that seed at the rate of twenty to twenty-five pounds to the acre, and what was their disappointment to find that only five pounds grew. What caused them to be so badly misled? Simply the fact that they could buy it for a dollar and a half a bushel less than good seed would cost. Was it a paying investment? We think not.

There is so great demand this spring for alfalfa seed, and the price of good seed being high, we fear a great many farmers are going to be seriously disappointed in the result of their sowing. Let us emphasize this principle in alfalfa culture: There is not a single process in the business, from the selection of the seed to the fitting of the soil and the final harvest of

the crop, where a farmer can afford to listen to this talk about cheapness as against thoroughness. It is a business where the profits are too great to be trifled with by any short-sighted policy of labor or expense saving. "The best is none too good" for alfalfa at every step of the way. We believe a large share of the disappointment men have met with in planting it is due to losing sight of this important fact.—Hoard's Dairyman.

A CURE FOR FIELD MICE

If you have been troubled with field mice in the garden or berry patch, get a good cat or two, of the persuasion that will lead to more cats on the place, and teach them to forage in the garden. This can soon be accomplished by carrying them to the garden every time they come to the house, and also by giving them some milk in the garden night and morning. A cat should be given milk, and that is all she should be given on the farm.

It is well to have the barn well stocked with good cats. Do not allow them about the house. Two or three good cats will pay big wages for lodging and milk if they are treated right. The females make the best mousers.—The Farmer's Call.

DEFECT IN FARM-YARD MANURE

As a carrier of available plant food farm-yard manure is not especially valuable, as a ton of it contains only from nine to fifteen pounds of nitrogen, four to nine pounds of phosphorus and nine to fifteen pounds of potash. Its greatest benefit to the land is as an indirect fertilizer. It adds organic matter, which provides humus, thus increasing the water-holding capacity of the soil. It benefits the texture and makes heavy soils, especially clays, more porous. It tends to make sandy soil more retentive of moisture by adding vegetable matter. Through its decomposition it adds heat and increases the heat-absorbing powers of the land; carbonic acid is also formed, and this increases the solvent power of the water contained in the soil. It is thus easy to see that while farm-yard manure is not a richer carrier of plant food, it exerts so many beneficial influences that it is properly entitled to the measure of praise which it has received in the past, and should receive much more careful consideration at the hands of farmers than has been the general practise on the American farm. It is also evident that a special effort should be made to save and utilize the liquid portions of the manure through the use of large quantities of suitable absorbents.

That there is a lack of farm-yard manure is shown by the facts presented in the foregoing paragraphs giving the numerous useful influences it has on the soil, as compared with the amount of available plant food it contains. It is evident, therefore, to all thoughtful men that phosphorus and potassium in particular should be, and can be, applied along with farm-yard manure with the most advantageous results. For instance, six tons of farm-yard manure would supply the nitrogen needed for a forty-bushel crop of corn; practically twelve tons would be required to supply the phosphorus, and five to six tons of the potash. It is thus an ill-balanced food, richer in proportion in certain elements than in others, which must be supplied in a commercial form in order to balance it up properly. Floats can be mixed advantageously with farm-yard manure at the rate of fifty to one hundred pounds a ton, or acid phosphate may be used on land to which manure has been applied in previous years. Twenty-five pounds of muriate of potash will not be too much to apply with each ton of farm-yard manure. In other words, fifty to one hundred and fifty pounds of muriate of potash to the acre on land heavily covered with farm-yard manure will, as a rule, prove profitable; on crops to which chlorine is objectionable, use sulphate of potash. Many farmers who have used farm-yard manure exclusively as a fertilizer now complain of their inability to raise large crops of Irish potatoes and truck crops as satisfactorily as they formerly did. This is due to the insufficient supply of phosphorus and potassium returned to the land by the manure. This is a matter of far-reaching importance, and the lack in farm-yard manure, if more widely appreciated, would enable farmers to raise larger crops through supplying the necessary elements of mineral food which are likely to be deficient in the soil.—George Wright in the National Stockman and Farmer.

BEST KINDS OF SOY BEANS

We have grown quite a number of varieties of soy beans on our experimental plats for the last two years. The bean giving us the largest yield has been the Itho San Yellow. The Extra Early Black stood second on the list, and the Japanese pea third. The average yields for two years have been, respectively, twenty-one, fifteen and fourteen bushels. The Extra Early Black and the Japanese matured for hay about August 15th and the Itho San Yellow about September 3d. You will see from this that the Black has not yielded so well as the Itho San Yellow, but has matured for hay at a considerably earlier date. We have grown the yellow soy bean for a number of years, and have found it a strong, vigorous bean and one that yields a large amount of seed. It is not so early as the varieties mentioned, however, but where a long-growing season prevails it is as satisfactory a variety to grow for hay and grain as any we have ever tested. For early-maturing qualities the Extra Early Black is one of the very best.—Southern Farm Magazine.

CEMENT FLOOR FOR COW STABLE

Make the floor about four inches thick by first making a solid foundation. Clay soil is a good foundation. If the soil is not solid, put down cinders and have them down solid. On top of this put down about two inches of concrete, one part cement, three parts clean, sharp sand and three or four parts crushed rock or clean gravel. Mix the above dry first, then wet and re-mix. Do not make it too wet, only enough to cause it to pack when tamped solid. As soon as this is done put on half an inch or a little more of one part cement to two parts sand, mixed dry, then wet and re-mix; make it the consistency of mortar. Trowel the last coat down level. Make it smooth or leave it rough as desired. If it is to be boarded or planked over we would make it smooth. If to be used otherwise, leave it rough, so the cattle will not slip. In making a cement floor lay off the area in blocks four to six feet square by setting up two by fours on edge, held in place by two by fours driven into the ground. The top of the two by fours should represent the level of the floor, so that when the concrete is leveled by using a straight edge across the tops of the two by fours it is at the proper level. When one square is finished, carefully loosen the two by four and remove it, as the floor forms a shoulder to work against. Some build every alternate square first, after which the others are completed. Put a strip of tar paper between the blocks, which will prevent cracking. Wet the floor once a day after finished for a week, when it is ready for use. Be sure that the gravel and sand is clean, and use Portland cement.—The Wisconsin Agriculturist.

LIVE-STOCK NOTES

When I quit keeping sheep I quit farming.

I would not farm without sheep. My pasture grows up in the weeds if I don't keep sheep.

My stubble grows up, and I turn my sheep on the stubble, and they clear it up without any expense, and I find that it is clear profit. I cannot farm successfully without sheep; the farm looks bad without sheep.

I believe in keeping all kinds of stock on the farm.

Divide the stock out among the sheep and cattle and hogs, and the farm will be a success where it would not be if all kinds of stock were not kept. Sheep clean up the farm. There is a clean profit in a small bunch.—Farm and Stock.

DURUM WHEAT

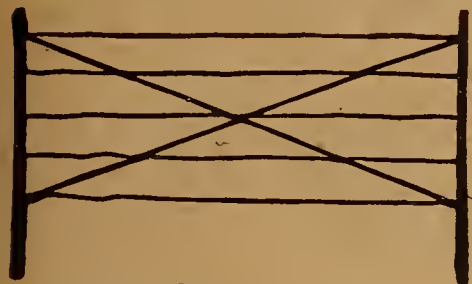
The durum wheat is really adapted for growing in a drier climate and succeeds well in the western part of Kansas. I would recommend barley in preference to durum wheat for spring seeding in your section of the state. For further information regarding durum wheat, I have mailed you a copy of a letter answering inquiries on this subject. I may say briefly that the durum wheat should be sown very early in the spring, as soon as the soil is in condition for cultivating. Durum wheat matures about ten days to two weeks later than the Turkey wheat.—A. M. TenEyck in the Kansas Farmer.

Do not fail to read the advertisements in this issue. By doing so you are sure to find something you need. FARM AND FIRESIDE is our market place where we invite the merchants to bring their goods to sell. They, too, are our friends, and we want you to know them. They have promised to give our people prompt and courteous treatment, and we guarantee to you that they will do so. In writing to any of them, be sure to mention FARM AND FIRESIDE and you will be surprised at the promptness of their reply.

Review of the Farm Press

PORTABLE FENCES

The illustrations given herewith show several forms of portable fence which have been tried and found useful. The



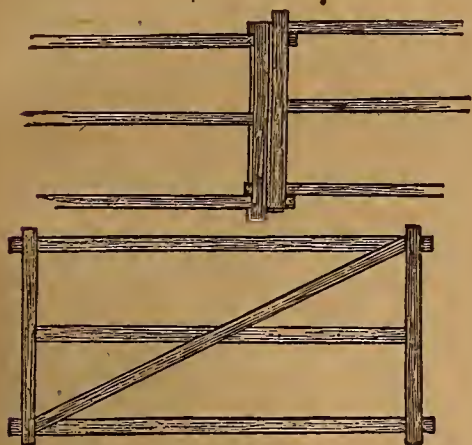
first cut shown is from a Rhode Island farm. The uprights are of locust or chestnut, six feet long, braced with poles of any stiff wood. Holes are bored at top and bottom corners of uprights at the proper angle, into which the rounded ends of the braces are inserted. Five lengths of wire are stretched across and stapled to posts and braces. Each panel is ten feet long and set in crowbar holes.

This fence, used in northern New York,



is made of any light lumber about four inches wide. Half the panels should have the slats *a a* on one side and the other half on the other side. The cleat *d* should always be opposite *a*. To erect the fence, put the ends *c c* through the openings *b b* and fasten by wedge *c*. Of course, temporary posts must be set at proper intervals.

This form of panel is used in parts of



Tennessee. They are twelve feet long, made of boards three inches wide, or straight poles flattened at both ends may be used. A cleat is nailed on each side at both ends, allowing the ends to project three inches. Stakes are driven at intersection of the panels and the fence wired to the stake.

Here is a fence of rough material found



in parts of New Hampshire. It could be made of boards and of any desired height. No posts are needed, and the fence is quickly loaded on a wagon and moved wherever desired.—The Rural New-Yorker.

EXPERT CORN CULTURE

Professor Holden, the Western corn expert, has been making the rounds of the New England farm and New York State meetings. Besides describing his method of selecting seed corn, the professor advances other ideas with regard to New England farm methods. He advocates growing the cattle feeds on the farm, and insists that Eastern farmers will grow more dent corn, and that alfalfa will soon be considerably grown here if farmers will thoroughly drain the soil to a sufficient depth to make the soil sweet, thoroughly pulverize it, and make a firm, solid seed bed, sowing the seed early in August.

TESTING THE CORN

Coming down to the point in hand, he presented a plan for testing the quality of seed corn by determining its germinating power, showing those present the manner in which he was enabled to select the good ears and reject the bad, by use of a germinating box, in which, in separate compartments, sample kernels from different ears were placed and their ger-

minating power soon determined, the bottom of the box being filled with moist sawdust, a layer of thin muslin placed thereon, and all packed down, the kernels then placed in the different compartments, covered with another thin piece of muslin, with more sawdust on top, and again packed down. In due time examination shows the real germinating value of the samples from the different ears, and it is easy to decide which ears to use for seed and which to reject.

WITH POOR SEED

producing either nothing at all, or thin, straggling stalks that, as a boy of whom the professor spoke said, went "fooling around all summer doing nothing," one half or more, as the case may be, of the time and labor out in the corn field by man and boy during the season is absolutely thrown away. The man who raises twenty-five bushels of corn to the acre, instead of fifty or seventy-five which he may just as well produce with the same labor, if he gives due attention to the seed, is actually reducing the value of his neighbor's farm as well as his own. In Iowa to-day, he said, sixty-five thousand farmers use the germinating box for thoroughly testing their seed, and to this fact is attributed the wonderful increase in the annual amount of the corn crop, and the corresponding increase of the general prosperity of the farmer.

JUDGING THE EAR

An ear with white cob in yellow corn or red cob in white should be marked zero. The rows or kernels should extend in regular order over the butt, leaving a deep depression when the shank is removed. Open and swelled butts, depressed and flat butts with flattened glazed kernels are objectionable. Usual length of ears for northern sections, eight and three fourths to nine and three fourths inches long and six and one half to seven inches in circumference; southern sections, nine to ten inches long and six and three fourths to seven and one fourth inches in circumference. Corn should shell eighty-six to eighty-seven per cent in weight against cob.

An average ear of corn is said to contain seven hundred and forty-four grains.—S. R. Cook in the American Cultivator.

THE MANURE SPREADER

An Economical and Profitable Implement

Ideal manuring would consist in placing a small particle of manure—and its bacteria—in contact with each particle of soil. This cannot very well be done when the manure is spread by hand in the old-fashioned way. No matter how careful you are, the manure is apt to be scattered in uneven chunks—a big one here, a smaller one there, and none somewhere else. Probably not more than two thirds of the soil particles come into direct contact with the manure and its bacteria. Of course on a small field or garden spot a man might, by using a rake or extra quantities of manure, bring about better results. But on a large field, both time and manure are too precious and scarce to use in such a way.

And right here is where the machine manure spreader steps in and performs its perfect task. Big hard chunks are torn to shreds before being spread, and the entire field is blanketed with a thin, even layer of manure—every particle of soil receiving its uniform, just share of bacterial nutriment.

Many farmers have not thoroughly realized the important part which is played by the bacteria contained in ordinary stable manure. For best plant growth the presence of bacteria is as necessary as the presence of food. Stable manure furnishes both.

The main advantage of a manure spreader is this: It enables the owner to spread manure so finely and uniformly that a light, thin layer will answer the purpose of a heavier layer spread by hand. Thus a given amount of manure can be made to go a great deal farther. This means money saved, increased crops, increased prosperity.

Of course, too, time and labor can, under certain conditions, be saved by the use of these useful machines. But most important of all its advantages is the bringing of tiny particles of bacterial nutriment into close touch with the entire soil surface of a larger area than could be covered by spreading by hand of the same amount of material.—The Farm Journal.



Sharpened Tools

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Gardening

BY T. GREINER

MORE ABOUT ASPARAGUS

Too much can hardly be said about asparagus. It is the one crop that never fails. Year after year, for a period of upward of two months annually, it gives the sure returns—in money to the commercial grower, and in many delectable dishes to the home gardener.

If the owner of a little piece of land in the suburbs of a village or city should ask me to tell him the best use he could make of that land (provided it is well drained), or to name the crop that he could grow with most assurance of profit and that would require only a comparatively small amount of attention, I think I should say, "Plant asparagus!"

Mr. A. G. Bishop, of Michigan, in his talk "Fifteen Minutes with a Market Gardener," given at the recent meeting of the Western New York Horticultural Society, told of having ten acres of asparagus in bearing, and of expecting to plant ten acres more. He has never had the least difficulty in selling his crop at top-market prices right in his own vicinity or in a small city close by. He raises his own plants from seed (Giant Argenteuil, both early and late), and sets them in permanent patch when one year old. The rows are made four feet apart, and the plants set eighteen inches apart in the rows, about six inches deep. Some nitrate of soda and more or less bone meal are applied every year, usually after the cutting season. But good crops can be raised without these aids so long as liberal applications of good stable manures are made every year. Mr. Bishop tells me that he has very little, if any, demand for white or blanched stalks; so he only sells the green asparagus. This simplifies the gathering of the crop, as the stalks are all cut at the surface of the ground. The only differences, however, are that for blanched stalks we plant the roots a little deeper and hill up the rows in spring, then cut the stalks about four or five inches below the ground surface. We grow the one or the other, according to what is wanted in our markets or for our own table.

ASPARAGUS VARIETIES

Immoderate claims have often been made for certain of the so-called newer varieties of asparagus. I have tried most of them, at times with inflated expectations. In my operations, however, I have found but slight differences between the different sorts, except perhaps in color. Color differences are more striking in blanched than in green stalks. As far as size of stalks is concerned, there is a greater difference between specimen plants of the same variety than between the varieties themselves. Palmetto is as good as any variety we have, and it is considered to be least subject to rust attacks.

In Burbank's Quality, plants of which were furnished me by the famous originator of new things himself, I have as yet seen nothing very striking or superlatively meritorious. Argenteuil, or Giant Argenteuil, as usually called, is a reliable and good kind from France.

GREEN FLY IN GREENHOUSES

Last year I tried the hydrocyanic gas for green fly, and succeeded in checking them very thoroughly, although at one time at the expense of injuring the tops of quite a number of tomato plants. It is not very pleasant to handle dangerous poisons of this character, or even to have them on the premises, even if in a specially arranged cabinet under lock and key.

For that reason I am not going to repeat the experience; nor do I find it necessary, as we now have very convenient and safe means of fighting the pest in several nicotine preparations. I did not like the old method of fumigating with tobacco stems. This always had to be done with considerable care. If we did not burn stems enough, many lice were liable to escape and soon stock up the greenhouse with a new supply of green fly. If we fumigated a little too strong, then the smudge often injured the plants.

Now we have strips of paper saturated with the extract of tobacco stems. They are simply hung up on wires, here and there, in the building, and set afire with a match or torch, and will soon fill the atmosphere inside with a strong nicotine vapor, killing every plant louse. We also have nicotine in concentrated solution, and may use this either

diluted with water in a spray or by rapid boiling in a flat pan (by throwing a heated iron into it), and accomplish the same results with greater certainty and safety than in the old fumigating method. The green fly has no more terrors for me.

SWEET PEAS

The one flower which we, whether rich or poor, feel we cannot be without is the sweet pea. No matter how unpretentious and possibly cramped our home surroundings may be, there is a little room somewhere for a cluster, a ring or a row or two of sweet peas, this most thankful of all annual flowers. If we cannot do better, we may put a row at one side of the vegetable garden, or spade up a strip along the east or south side of a fence or building, or make a round or square bed for them on the lawn.

Seed of a good mixture is cheap. You can buy a quarter pound of it for from fifteen to twenty-five cents. What you must do, however, is to make the soil rich, and prepare it deeply and thoroughly, and then sow the seed very early, in fact just as soon in spring as the weather conditions will permit, placing it three or more inches deep.

When the plants make their appearance, put up a trellis of wire netting or brush for support, and when the plants come into bloom, gather freely for cut flowers and let none go to seed. This treatment will prolong the blooming period through the best part of the summer. Sweet-pea flowers are often quite salable to private customers and flower stores, as are also asters and other annual flowers.

THE FLOWER FOR SHOW

For gaudy color effect a bed of scarlet sage (*Salvia splendens*) is hard to beat. The plants are easily raised from seed in a box in the house or in an early hotbed. Transplant them in thumb pots or into another box, two inches apart each way, and when the weather permits, set into the border or into a bed by themselves, ten or twelve inches apart. If possible, mulch all around the plants with coarse litter, and give water freely in a dry time. A good showy bed may also be made by planting a group or cluster of cannas in the center of the bed, and the scarlet sage around it. How a bed of this kind does brighten up the lawn and the whole premises!

Local flower and seed stores usually keep potted plants of the scarlet sage on sale, but it is much cheaper to raise them; and for a showy bed or border we always want at least several dozens of them, for which the dealer would ask more than we might possibly feel able to pay out "just for show." If we have a surplus, however, some neighbor or townsman will take them at a fair price. At least, that is my experience.

CELERY IN SOUTH CAROLINA

Some of these questions addressed to me are indeed puzzling. A South Carolina reader, who has never grown celery, intends to plant a piece of ground, now in oats, with celery after the oats is cut in June. It is a branch bottom, mellow sandy loam, partly shaded by woods, and in a wet season a little too wet for corn. Will celery give a good crop on that land?

How can I tell? Much depends on the fertility of that soil, for if it is only of the ordinary fertility of average farm land, even the most lavish use of "fertilizers" gives no assurance of a big yield. Good decomposed stable manure may be almost indispensable. It is a safe manure in all such cases.

I surely would not care or dare to plant a big field for a first venture or without first trying a smaller patch of it. The land may be just right or it may not be. For early fall we plant here mostly Golden Self-Blanching, and if this is planted somewhat late we could use it for late fall, although at that time we have to keep the boards on much longer than for blanching it for August or September use. Winter Queen and Giant Pascal are good late sorts to be blanched by earthing up.

Our friends should inquire in their own vicinity and see how their neighbors succeed with such crops under similar climatic and soil conditions; then try, and if at first you don't succeed, try, try again!

"New Creations" in BUSH LIMAS!

Nature has surely surpassed herself! In a single season she has outstripped all efforts of man. In fact, such distinct new types have never even been dreamed of before!

To learn just what they really are and how they were discovered, kindly study pages 10 to 15 of THE FARM ANNUAL FOR 1907. They are undoubtedly the "Greatest Novelties of the Age."

The Burpee-Improved is an entirely "New Creation." The pods are truly enormous in size, borne in great abundance upon bushes two and one-half feet high by two feet across. The beans are both larger and thicker than those of the popular *Burpee's Bush Lima* or any strain of the large *White Pole Lima*.

Fordhook Bush Lima This is altogether unique. Nothing like it has ever been seen before. It is the first and only stiffly erect Bush form of the fat "Potato Lima." Both pods and beans are twice the size of *Dreer's*, *Thorburn's* or *Kumerle Bush Lima* and more than half again as large as the *Challenger Pole Lima*.

\$1115 in Cash Prizes

With one prize of \$150, and several of \$50 each, we will pay a total of \$1115 on these **Two New Bush Limas**,—see *BURPEE'S FARM ANNUAL*.

These Bush Limas

are sold only in sealed packets. Each packet contains twelve perfect hand-picked beans. Per pkt. 25 cents; 5 pkts. for \$1.00 postpaid.

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To every one who orders direct from this advertisement, we will send Free, if asked for,—any one with a 50c. order, any two with a dollar order, or all four with an order for \$2.00. These Novelties, not yet catalogued by us, but on which we offer Cash Prizes for advance trials, are: *New American Dwarf Bush Nasturtium*, "Ashes of Roses,"—The New English "Beacon" Sweet Pea,—New American Thick-Leaved Gigantic Mustard, and a New Early Hard-Head Butter Lettuce from Germany.

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Best seed for sale. Write for samples, prices and FREE directions "11" on growing. **J. E. WING & BROS.,** Box 17, Mechanicsburg, Ohio, or Eutaw, Alabama.

Fruit Growing

BY SAMUEL B. GREEN

CO-OPERATIVE MARKETING OF FRUIT

AT A recent session of the Wisconsin Horticultural Society, where the subject of co-operative fruit growing was under discussion, much of interest to fruit growers generally was brought out. It was shown very plainly that a properly-managed fruit association is absolutely necessary for successful marketing of fruit in many localities, and that without such co-operation the growers of fruits are at the mercy of transportation companies and commission men. It was shown how easy it was to co-operate.

Under the present conditions of society it is absolutely necessary to unite together in this way in order to accomplish anything. This does not mean that it is a case of one portion of society against the other, but simply that things are done in a better way when men organize and work together than when they go at it individually.

Among the points brought out were the following:

E. A. Richardson, of Sparta, Wisconsin, manager of the Sparta Fruit Growers' Association, made the following statement:

They sold eight thousand twenty-four-pint cases of blackberries, average return \$1.37; sixteen hundred twenty-four-pint cases of black raspberries, average return \$1.49; five thousand twenty-four-pint cases red raspberries, average return \$1.53; sixteen thousand sixteen-quart cases strawberries, average return \$1.37.

The association is a mutual one. They employ a manager by the season, to whom they pay a salary of one thousand dollars. They have a desk in the office of the American Express Company, and have recently invested three thousand dollars in land and buildings in Sparta, in which they will manufacture crates and boxes.

They put their fruit in three grades—first, second and no grade.

J. B. Graves, of Neosho, Missouri, president of the Neosho Fruit Growers' Association, states that they pay their manager two per cent of the gross sales, and he pays all the office expenses and for loading cars. This manager generally clears about one thousand dollars.

Members of the association are restricted in some ways. For instance, a regular scale of prices is fixed for labor, and no one is allowed to pay more—if so, he will be expelled from the association. It buys crate material, stencils, etc., makes arrangements with the banks for loans to the growers, as well as assists in other ways.

By careful arrangement they succeeded in getting nearly as fast service by freight as by express. They have found it desirable to specialize in the matter of growing strawberries, and selected one variety for their members to grow. This is the Aroma, which does well in this section. One of the advantages in having only one variety is that the general appearance of the shipment, when opened, is more uniform, which is a help.

Hood River, Oregon, made its great record for strawberry shipment on the Clark seedling.

The problem of marketing the poorer grades of fruit is an important one, and Mr. Graves thinks it must be solved by each association in its own way, but thinks that canning, vinegar and cider factories will naturally become a portion of an organization of this kind when it has reached perfection.

The subject of allowing the express company to act as sales agent was fully discussed, and the experience of growers was opposed to this method of marketing except under occasional conditions.

PRUNING CURRANT BUSHES

Mrs. H. J., Bowling Green, Missouri—The best way of pruning currant bushes is to cut out the weak and insect-infested wood, taking pains to preserve a sufficient number of vigorous canes to give the bush good form. The weak sprouts that come up around the bushes should be cut out. As a rule currant bushes do not need much pruning, but they are greatly benefited by a little pruning if it is carefully done each year. It should be borne in mind that the fruit is borne upon wood two or more years old, and that the wood bears no fruit the first year.

MULCHING STRAWBERRY PLANTS

W. C. S., Oregon, Ohio—I think the best material for mulching strawberry plants is swale hay free from weed seeds, bagasse from a sorghum factory, or any similar material that will lie up loose and

light, will stay in place and is free from weed seeds. Such material is often difficult to obtain, and this year I took the precaution to sow an acre of fodder corn for this purpose, as I have used it in previous years with excellent results. We generally sow fodder corn about the middle of June and cut it as soon as the ears are well formed. For mulching, however, I think it would be a good plan to sow it a little thicker than it is ordinarily sown for fodder, and to cut it a little earlier.

An ideal covering for a strawberry bed is corn stalks in bundles, laid one on each side of the row, with another on top. This gives protection and yet does not lie close.

I know very well the difficulties which come from the use of wheat, oat or rye straw or ordinary hay as a mulch for strawberry beds. Oftentimes the labor of weeding, as the result of the weed or grain seeds that are distributed in this material, is a very expensive matter.

SCALDING BLACK LOCUST SEED

H. A. W., North Webster, Indiana—Black locust seed should always be scalded before sowing, and so also should the seed of the honey locust and the Kentucky coffee tree, all three of which are nearly allied botanically. The best way to scald this seed is to put it about half an inch deep in a milk pan and then pour on hot water not quite at the boiling point. Let it stand for several hours, when it will be found that some of the seeds have swollen. These should be picked out and the balance treated in the same way again, and the picking out and scalding process repeated until all have swollen. If managed in this way the seed is nearly sure to start when planted, and if not treated in this way you can expect a very uneven stand of seedlings.

SAN JOSE SCALE

P. H., Noble, Indiana—I do not know who could have stated that San Jose scale is a benefit. It is perhaps the most destructive of all insect pests, and one of the most difficult to combat. It does not seem to be especially troublesome in the cold climates of the extreme Northern states, but in the Central and Southern states it is doing an enormous amount of injury.

I did not see the article to which you refer, and if any one claimed it was a benefit it must have been from the fact that it gives the good cultivator of fruits a better chance than he would have were there no pests of this kind to combat.

ICE ON STRAWBERRY BEDS


C. V., La Crescent, Minnesota—In regard to the ice on strawberry beds causing them serious harm, I will say frankly that I do not feel at all sure as to the way in which strawberry plants are hurt in the winter, or whether ice is always injurious when covering them. I have sometimes seen strawberries covered several inches with ice under the straw covering, and yet they came out alive and fruited well.

I do not know what you could do to cause the ice to melt under the straw, and think there is nothing within your power at present to do that would protect the plants. I doubt very much if this ice will cause them any serious injury. If the ice was exposed to the sun it could be broken up by scattering a very small amount of ashes or sand over it, which would gradually melt into the ice and disintegrate it. I have often used this method to melt snow banks in the spring about my hotbeds.

BLACK LOCUST FOR POSTS

V. P., Roanoke, Indiana—It is profitable in some sections to plant black locust for posts. It is one of the fastest-growing trees I know of, and will often make good posts four inches in diameter in ten years. It is inclined to sprout from the roots, but where this tree is grown in a plantation by itself for the purpose of producing posts this is not objectionable. As a street tree, however, this feature makes it troublesome. In some sections it is much troubled with borers.

I do not know just what you can buy in the way of black locust seedlings for one dollar a thousand, but I can readily understand that under favorable conditions seedlings of this tree could be raised and marketed at that price. Ordinarily I should expect to pay about three dollars a thousand for them.




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For ten 2-cent stamps I will send one packet of these Best of All Pansies, together with a copy of The Maule Seed Book for 1907. 328,000 copies of this book have already been mailed, at a cost of more than \$45,000. It contains 69 Specialties in Flowers and 63 Specialties in Vegetables (many of which cannot be obtained elsewhere) as well as everything else, old or new, worth growing. Seeds, Plants, Bulbs, Trees, etc. It is the best I have published in the last 30 years. If you make a garden this spring, you surely ought to have this Book. It will be mailed together with a packet of these choicest of all Pansies to anyone sending me 20 cents.

Return the empty Pansy packet with another order; It is good for 20 cents.

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PARSNIP, White Sugar, long, smooth, sweet.
RADISH, White Icicle, long, crisp, tender, best.
TOMATO, Earliest in World, large, smooth, fine.
TURNIP, Sweetest German, sweet, large.
Flower Seeds, 500 sorts mixed, large packet.
Sweet Peas, ½ oz. California Giants Grand Mxd.
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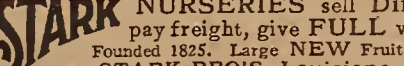


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MANAGEMENT OF YOUNG SOWS Selection, Feeding and Breeding

THE selection and development of the young sows to be retained in the herd or to be sent out for breeding purposes should commence at the time they are ready to be weaned and taken away from their dam. At this time the sow pigs that are well marked, show a good heart and rib development, stand well on their feet and show quality, should be separated from the others, removed to a yard or pasture separate from the rest of the herd, and fed in a manner that will promote the growth and development of their bone, muscle and constitution, and not overload them with fat. Much, in fact the greater part, of the sow's usefulness as a future breeder will depend on how she is fed and developed until she has reached the size and age that it is desired to breed her for the first litter. It cannot be too strongly impressed upon the minds of the breeders and farmers who are growing and breeding market hogs the necessity of feeding and caring for the young sows in a manner that will insure plenty of bone, muscle and vigor. It is a conceded fact among all breeders that skin and bones with the best of pedigree or breeding cannot beget litters of good, thrifty pigs. Neither is a sow that has been fed a fat-producing ration until she is overloaded with fat the one to raise a litter of good, vigorous pigs.

The ideal combination of feed with which to properly grow and develop a bunch of uniform sows, from the time they are weaned until they are ready to breed, consists of a ration of clover, alfalfa or

I am trying to make this article practical and from the standpoint of the breeder and farmer who is not feeding expensive feeds and who depends on clover, alfalfa and blue grass to enter into the economic growth of his gilts. By growing the gilts in this manner a weight of two hundred and fifty pounds at nine or ten months of age is all that can be expected, unless they are fed heavy and overloaded with fat that makes them undesirable for breeding purposes.

The matter of sanitary conditions is of great importance, and requires vigilance and patience in keeping the gilts and houses free from vermin and lice at all times of the year. To do this means constant watching, and in many cases dipping must be resorted to. If one phase of the business is neglected, the whole enterprise will be in a shaky condition and liable to result in heavy losses. Pigs that are lousy will not make profitable gains, no matter how well fed. The yards should be kept clean, and no old feed and filth should be allowed to accumulate in the feeding troughs. The pigs must have an abundant supply of pure water, a dry sleeping place and a protection from extreme heat and cold. These are all necessary factors in the development of breeding animals, regardless of sex.

We all have our fads and our fancies, our likes and our dislikes, and try as hard as we may, they oftentimes get the better of our judgment and we become excited over some sensational show gilt, and think our own are rather small beside some five-hundred-pound year-old sow. There is no one thing that will create more enthusiasm in the writer than a nice bunch of uniform brood sows or gilts. They speak volumes of praise, and show the true index of the breeder's skill of selection, feeding and development. When it comes breeding time it is best to breed the gilts to a mature boar, to counteract the tendency of reducing the size and quality of the descendants.

Both observation and experience has convinced me that there is a general tendency, in the anxiety to secure results from the breeding herd, to breed the gilts at too early an age, which too often injures the vitality and growth and promotes reduced size and quality. Gilts should not be bred until they have acquired fair maturity and development.

The breeder who breeds his sows to farrow at from fourteen to sixteen months of age is on safer ground than the man who will not wait for this maturity and breeds them at from six to eight months of age. I am satisfied in my own mind that the gilts that are kept in a good growing condition on a ration composed largely of succulent feed, with just enough grain to keep them growing and building up good bone, muscle and tissues, will be of greater value to the breeders and farmers than those that have been crowded and fed on a highly concentrated ration of expensive feeds, and made to weigh four hundred or five hundred pounds before their organs of maternity are fully developed. It is also a fact that cannot be disputed that gilts can be grown at a much greater profit when clover, alfalfa and blue grass form a large share of their diet.

Another matter which we must take into account, when we are admiring the sensational gilts at the fairs and expositions, is the fact that every one of those highly fitted individuals is an exception, and in many cases ten or a dozen others with a less capacity for feed and weaker constitutions have been overfed and put off their feet and practically ruined for future breeders in order that the breeder may have the honor of exhibiting this animal.

Kansas.

W. MILTON KELLY.

DOOR FOR HOG HOUSE

Many hog houses are built with an aperture two and one half to three feet wide, which has no door, and when the mercury drops, the cold seems to go through that opening in chunks.

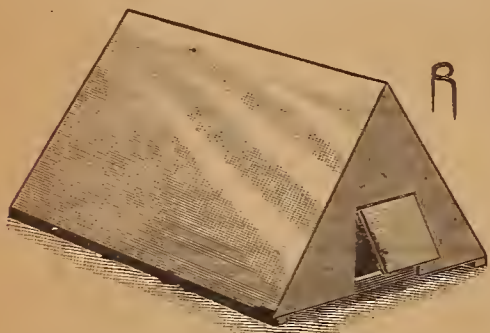
Across the top of that aperture nail a bit of two-by-four scantling. Make a door just wide enough to fill the opening and swing easily. Get your blacksmith to make two staples two and one eighth inches wide, and fasten them to the scantling.

Have him make two other staples with a ring at the top which stands at right angles with the legs of the staple. On top of the door place another two-by-four scantling.

Fasten your ring staple to the scantling at the top of the door, and insert the other staple in the ring and fasten to the scantling at the top of the doorway.

Illinois.

U. S. ELLSWORTH.



SWINGING DOOR FOR HOG HOUSE

blue-grass pasture, supplemented by a small amount of grain or mill feed. Skim milk is also an excellent feed, and mixed with middlings in the form of a thick slop, makes an ideal feed in addition to pasture. A small allowance of corn is desirable if they are not making satisfactory gains in flesh. But do not think it necessary to overload them with corn because they are growing long and rangy, for then is the time that you are on the road to success. Try to feed them to promote that kind of growth. In many cases where skim milk is not available, a small amount of digester tankage will help to keep them growing. Old-process oilmeal is also an excellent feed to use in place of skim milk.

There are many other excellent feeds that may be used with good results, the main point being to feed for bone, muscle and flesh, and avoid putting on an excess of fat. When pasture is not in season, alfalfa or clover run through a cutting box and fed with mill feed in the slop is the best feed we know of to keep the gilt's digestive apparatus in good order. From my own experience, I have found no kind of feed superior to ground oats as a part ration for the gilts from the time they are seven months of age until they are ready to breed.

If all our breeding animals were fed oats as a part of their ration there would be many more regular breeders and animals whose organs of maternity were properly developed. I am satisfied that if ground oats form a part of the gilt's ration, there will be no trouble in getting her safe in pig, and she will be developed in a manner that will insure her future usefulness as a breeder.

Much has been written regarding the proper size and weight that the gilts should attain at from eleven months to one year of age. I know breeders who claim that four hundred to five hundred pounds is nothing startling for a gilt to weigh at eleven months to one year of age. I do not wish to belittle the achievements of breeders who are much older and more experienced than the writer, yet it is a question in my mind if that kind of gilts would prove very successful in the hands of any one but an expert hog man who had every convenience for caring for them to the best possible advantage, and was also experienced in handling this kind of stock.



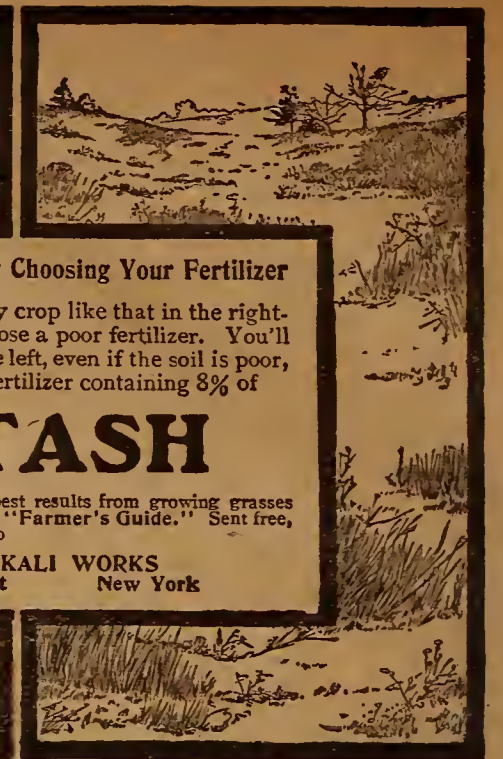
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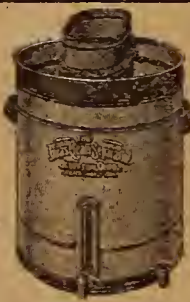


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Live Stock and Dairy

ZELICA

Below is the picture of a young mare that brought into the world an equine that caused more horse talk than perhaps any animal of that tribe in the entire world.

In this rather unattractive print is seen the mother of Dan Patch, the fastest pacing horse in the world. The mare was known as Zelica, and about ten years ago was bought at a horse sale at Remington, Indiana, by D. A. Messner, Jr., a merchant of Oxford, Indiana. Zelica was by Wilkesberry and Abdallah Belle by Pacing Abdallah. She was brought to Oxford and kept in a livery stable, later was bred to Joe Patchen, and the colt is to-day holding the pacing record of the world at 1:56 1/4.

Zelica is still owned by Mr. Messner, and she has produced a number of other promising pacers.

It is an odd fact that the places where famous horses have been brought into the world and trained are marked with as much pride as the people of a town put up a monument to commemorate a distinguished citizen. At Oxford, Dan's old home is marked with a great sign board that may be read for half a mile away. On the red roof of the barn is painted in white letters his name and his record.

The home of Joe Patchen, the sire of Dan Patch, at Plainfield, Illinois, is similarly marked. Strangers are not able to pass through the principal street without noticing a big archway over a driveway to a neat little barn. On the surface of the arch is read the legend "Home of Joe Patchen."

J. L. GRAFF.

SPRING CARE OF STOCK

One of the most important essentials for obtaining good work from farm stock in summer is to give them good care in the early spring. If they are allowed to stand out in the weather during the rainy and cold season, it will prove deleterious to their health, and when

belt." By taking good care of the stock much of the loss would be averted. In addition to the loss incurred by inability to work, the animals also must be charged up with the loss of time to some of the other force on the farm. The men who work the animals must necessarily be idle to a certain extent while the mules and horses are not able to work. This accounts for many of the poor crops and much of the failure in farming which is so plainly to be seen in many sections.

A little extra care given the farm animals will prove time well spent. The same may be said concerning the cows and all other stock, and if they are given care and shelter they will not need near so much feed and still will do better and get fat quicker.

J. C. McAULIFFE.

A WELL-BALANCED RATION

CONSTANT READER—Your letter to the editor I hasten to answer. I am indeed truly sorry that the part of the article "What is a Well-Balanced Ration?" dealing with the chemicals contained in various foods, should have, through the use of technical terms, "told you nothing." I was laboring under the delusion that in these days all up-to-date farmers, or even those lucky ones who own "four nice Jersey cows," found it to their advantage to have a slight knowledge of the ingredients of which the food they feed to their cattle consists; that, in fact, a slight knowledge of chemistry to be obtained from within the covers of a twenty-five or fifty-cent school chemistry book is now considered essential by the farmer who "wants to know." Do not think for one moment that I write in anger at your criticism. Far from it. It is only in bitter grief. And now cannot you recognize the difficulty under which I labor in giving you a balanced ration upon which to feed your cows? You may be one thousand miles from me. How can I tell what feed is best and most easily obtained in your district? Whereas, by suggesting that "albuminoids are flesh



ZELICA, THE DAM OF DAN PATCH

work time comes they will lose their vigor and refuse to eat. Of course, when this condition ensues their capacity for work is at an end.

Farmers should always take particular care that horses and mules are not allowed to stand in damp stalls in the spring. When they are obliged to be out in the rain they should be rubbed when put in the stables, so as to prevent colds. The heavy rains of spring are usually very productive of ills in animals, and a little care on the part of the farmers will prevent much trouble.

A green patch for grazing will be of much value in the spring. The horse or mule needs something to assist in the assimilation of food at this season, and a succulent green stuff will prove invaluable in this respect. In many sections of the country beardless barley will prove a rapid grower and one that will afford much grazing. There are many other crops which can be tried, and several of them will be found good for the purpose desired.

Especially in the South there is an indiscriminate carelessness on the part of the farmers to allow their stock to run out in the fields and take all kinds of treatment. This accounts for the heavy sales of mules every year in the "cotton

formers and that fats and carbohydrates produce heat and energy," you could, by turning to a "Chemistry of the Farm," choose your foods to meet the chemical terms.

To show I bear no ill will, I think you will find the following to be useful rations. But supposing you are unable to get all the things mentioned, don't deride for proposing them.

POUNDS.		POUNDS.	
Gluten feed...	7	*Bean meal ...	3 1/2
Bran	3	Crushed oats ..	3 1/2
Turnips	28	Bran	3
Hay	8	Turnips	28
Straw	8	Hay	8
	54	Straw	8
			54
POUNDS.		POUNDS.	
Decorticated cotton cake.....	3 1/2		
Cornmeal	3 1/2		
Bran	3		
Turnips	28		
Hay	8		
Straw	8		
	54		

* Bean meal will greatly assist in milk production. W. R. GILBERT.

CREAM SEPARATOR ADVICE WORTH NOTING

(Copy)

DAYTON, OHIO, January 1, 1907.

At the close of our first year's work operating under the "Hand Separator" plan we find that our success has been fully up to expectations.

One of the main points of doubt with us was the ability to produce a high grade butter from cream so gathered, but the year's demand for our butter and the many high scores we have received has proved that the "Hand Separator" plan is the best both for creamery and patron.

When we decided to enter upon this system we naturally desired to place the best separator with the farmer, and our previous experience with power machines and with such hand separators as were in our territory had demonstrated to us that the De Laval was the most satisfactory. While the first cost to the patron may be a little more and our margin of profit is less than on many others, our year's experience has demonstrated to us that our choice was wisely made.

We are now receiving cream from about fifteen hundred hand separators, 90% of which are De Laval machines, and we believe we can truthfully say that in each instance they are highly satisfactory.

We have renewed our contract another year for the De Laval agency and our prospects are very bright for even a better year than the one just passed.

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Poultry Raising

BY P. H. JACOBS

THE BEGINNER

THE beginner with poultry, one who may be desirous of engaging in the business of selling carcasses and eggs as an exclusive pursuit, should not venture his capital too largely, nor expect to succeed without meeting with reverses and difficulties. When one has had no experience he should begin with the lowest expense and the least risk. If the capital is small it is better to rent a small farm for a year or two rather than to buy, for the reason that if he buys he reduces his working capital, and should he be unsuccessful he must stay on the farm until he can sell it. If he rents he can return the farm to the owner and leave. It is claimed, however, that if one buys he can begin and get everything ready for a permanent stay, but that is what an inexperienced person should not do. He should start in a small way, and increase his capital by increasing his flocks every year. He can then take his fowls to a purchased farm and feel that he has made a good beginning. A large flock of good layers will soon provide the capital for enlarging operations. No one should expect too much for the first two years. Allow several years, begin with but little capital, let the fowls increase, and it will not be very long before the beginner will find that he is considerably richer, and has saved his capital instead of taking the risk of losing it all at once. The experience gained will also be of great value. Nothing on the farm pays better than poultry, if rightly managed, but there is no quicker way to lose money than with poultry if one does not use care and judgment at the start.

EXPERIMENTS WITH FLOCKS

Every farmer or poultryman should make experiments, but experiments should be made in a limited way, and not with the whole flock. It is especially unwise to cross a large flock, and any experiments in crossing should be well considered. Mistakes of to-day may not be corrected for a year, and it is sometimes too late to undo that which seems easy of solution, but which leads to failure. As a rule nearly all beginners are anxious to test their ideas and theories. The result is often disaster. Never subject the whole flock to tests that should be done with only a few individuals.

PREVENTION OF SITTING

If the farmer is provided with conveniences for protecting the chicks he should allow the hens to sit, if any of them are so inclined, but if he prefers to have his hens bring off broods later in the season he will find it profitable to use care in "breaking up" the sitters. There is no better way to get a hen in good laying condition than to let her remain on the nest two weeks. When hens go on the nest with the intention of hatching out a brood they do so because they are out of condition for laying. To "break them up" at once is to violate natural laws, and nothing will be gained by it, as such hens will lay only a few eggs and then sit again. When they are on the nest give them but little food, a meal once in two days being sufficient. At the end of two weeks place each hen in a coop or box having a slat bottom, the box raised an inch or two from the ground. As a sitter always endeavors to warm the space under her she at once becomes dissatisfied with the cold air coming up through the slats, and abandons the attempt to sit. This method is also free from cruelty.

A COMPARISON OF RESULTS

In order to point to some of the advantages in using the right kinds of fowls a comparison may be made between two or more breeds, in order to arrive at an impartial knowledge of results obtained in feeding. It does not matter to the farmer whether a bushel of food is used to do service in producing eggs, with the aid of one or two hens, provided the cost of maintaining the hens is not increased, as the repair of waste of the body, and providing its warmth, is the first duty to which food will be assigned in the animal economy. If one has two large hens, each weighing nine pounds, and three small hens, each weighing six pounds, the weight of the two large hens will exactly equal that of the three small ones—eighteen pounds. If the food for maintenance was the same in proportion to the weight of the fowls, it is not out of

place to claim that three small hens should not consume more than two large ones; but there will be three eggs from the same lot of hens while two are being received from the other lot. The point then comes up whether the food does not give the larger profit when fed to the larger number of hens, provided the hens are given a sufficiency for all purposes. Too much attention has been given the work performed by the hen rather than the possible results that may be attained from the food when it is properly used. It takes more food to produce three eggs than it does for two, but the capacity to produce, or rather to convert, the food into eggs can be secured to the fullest extent only by appropriating the food to the greatest number of individuals that can add to that capacity. Three small hens will take up no more room on the roost than will two large ones, and they should be more active as foragers. In the winter season some of the large fowls give the better results, and therefore, as an offset to the claim in favor of the hens, the larger ones may lay while the smaller ones may not produce anything. The larger hen may also be a better market fowl.

VENTILATION AND EXPOSURE

It is the opinion of many that the exposure of fowls to cold air, provided they are protected against drafts, is the best of all methods of keeping fowls in winter, though it is possible that something depends upon the roost, the kind of poultry house and the food. Ventilation at all times, day and night, is highly essential to the health of poultry. Much of the disease to which birds are subjected may be traced for its origin to a neglect in ventilating the poultry house. No man should expect to profit by raising stock of any kind unless he gives the work his personal attention and supervision, for when the care of the fowls is entrusted to an inexperienced person, or to one who is disinterested, there are sometimes great losses, and the owner comes to the conclusion that "poultry does not pay." It is mostly on damp days that the hens draw themselves up, so to speak, as a protection against cold. They seldom seem to suffer when the weather is dry and cold, and they are fond of the sunlight, being happy when dusting where the sun's rays can reach them. With young chicks no risks should be taken. They prefer the warmth and shelter of the house. Chicks have no feathers when hatched, and the down on their bodies is of no protection. It is not safe to attempt ventilation experiments with chicks. A small hole in the roof or wall may do incalculable damage by keeping the house damp and cold. Evaporation of moisture is always at the expense of warmth, and the failure to keep the house dry may cause expense of more food, as the body of the fowl or chick is kept warm by food, and the more comfortable the quarters, the less food is required. Dry cold, where the broods are not exposed to the winds, will not cause as much sickness as will dampness, and especially when the rain leaks in.

POULTRY ON FARMS

Some farmers keep a few sheep to consume certain foods (especially young weeds in the pasture), because the sheep prove profitable by performing the desired service, without estimating the profit from the wool or mutton. The hens, ducks, geese and guineas are fully as useful as sheep in consuming much that the farmer does not want on his farm, and they never fail to pay a profit on the amount of capital invested in them. The keeping of poultry is profitable if it is methodically and sensibly pursued. As a branch of farming that requires so little work, compared to dairying, carries with it so much enjoyment, and takes up so little space about a farm, there is nothing so profitable that can take its place. To operate a farm, large or small, without a well-arranged chicken department would seem to lack a feature that would be noticed by nearly every one, and would cut off a steady supply of ready money for household purposes that would soon be felt and regretted. Poultry is profitable to many, no doubt, and a pleasant pastime rather than labor. Fowls are profitable on some farms, even when subjected to gross inattention, but when given the opportunity they seldom fail to return a satisfactory recompense for the care bestowed upon them.



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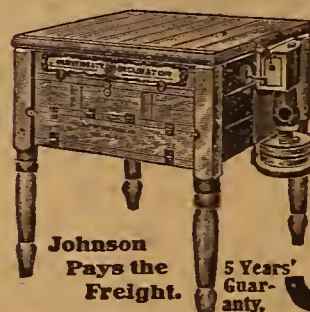
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ABOUT ADVERTISING

FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment.

Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

Letters regarding advertising should be sent to the New York address.

The FARM AND FIRESIDE subscription list has over four hundred thousand names. You're on.

Although we shall never see very many of our great FARM AND FIRESIDE family, we can, at least, talk to you every two weeks.

Have you bought all your garden, field and flower seeds yet? You know where to look for the announcements of reliable firms.

So many people write us about "Our paper," "Our good old FARM AND FIRESIDE," that we have come to look on the two million readers as our great family.

Some of our readers ask us about the integrity of various business houses. Although we appreciate the compliment, of course, we cannot undertake to investigate any but our own advertisers. These we guarantee.

In a recent address President Schurman of Cornell University gave this striking epigram: "The danger I see comes not from swollen fortunes, but from stolen fortunes."

That's the point. The mad rush to acquire great stolen fortunes is the root of nearly all our economic evils.

A Michigan subscriber says that Secretary F. D. Coburn's article gave him the "alfalfa hay fever."

Well, that's a good thing to get. If he selects suitable soil, prepares it properly and sows sound, pure seed, following the instructions given by practical alfalfa growers, he will pull through safely and be all the better and happier man for it.

Expert witnesses are advocates under oath—and under high pay. Philosopher Dunne sizes them up as follows:

"Them experts ar-re a bad lot," said Mr. Hennessey. "What's the difference between that kind iv testimony an' perjury?"

"Ye pay yer money an' take yer choice," said Mr. Dooley.

Don't take any chances with your seed corn. Test it carefully at once. Select and number the seed cars, and then take five grains from each car for the testing box. It takes very little time and labor to sort out fourteen good ears of sound seed corn for each acre you intend to plant.

A recent examination of a test of several varieties of selected seed corn, including some sold at a high price, showed an astonishing percentage of grains that either failed to sprout or with germs so low in vitality that the sprouts were not strong enough to push through the outer shell of the grain.

If that's the case with corn selected and handled purposely for seed, how about the corn that will be taken from a common crib at planting time?

Chemist Fraps of the Texas Agricultural Experiment Station publishes a warning against the so-called "recipes for making fertilizers for one dollar a ton." These recipes, sold by agents at five dollars each, he says are fakes, and the mixtures prepared according to the directions given are not worth the time and labor

applied. Besides, if farmers want good directions for mixing any kind of fertilizers, they can get them without charge from the experiment station.

A word about buying alfalfa, clover and grass seeds: Buy the best. As a rule the highest-priced grades are the cheapest. That is, the pure, sound seeds in a pound or a bushel of the best, re-cleaned grade cost less money than the good seeds in a low grade. Fifteen pounds of pure, sound alfalfa seed to the acre will give a better stand than twenty-five pounds of a grade that is one half alfalfa and the balance trash and weed seeds.

Besides, the grower cannot afford to sow weed seeds at any price. The low grades of seed are dear as a gift. In these days of improved fanning mills and re-cleaning machinery it ought to be a penal offense to offer foul clover and grass seeds for sale at any price.

TWO-CENT FARE

The movement for two-cent railroad fare is successfully sweeping over the country. By the time the legislatures adjourn about half the states in the Union will have the two-cent fare established by statute.

This does not mean that the net annual income of the railways from passenger traffic will be one cent less. In fact, their income will be larger. Increased travel and the abolishment of free passes will raise their income under a two-cent rate to more than it has been under the three-cent rate. On one big system with lines through Ohio the average rate per mile per passenger under the old rate was about 1 4-5 cents. That means that out of every three cents paid by the cash passenger 1 1-5 cents was applied to the transportation of the deadheads and cheap excursionists.

The lowering of the rate is a good thing; the abolishment of discrimination between passengers is a better one. The new rate law is good all around.

TWO SIDES TO EVERY QUESTION

The following letters from subscribers illustrate how two men with different experiences can have exactly opposite and perfectly honest opinions on a subject:

R. H. S., of Michigan, writes: "I read the article, in a recent issue of your paper, by Mr. Grundy on life insurance. I, for one, disagree with him in several ways. 'If young men would do as he advises them, they would come out all right. But nine out of ten will not stop to lay aside fifty cents or one dollar a month for rainy days, for they do not deem this worth considering.'

"I became a member of a fraternal insurance company some two years ago, and have paid something like twenty-five dollars to the order during this time. Last spring I had a very severe illness which laid me up for some time, and the order came to my aid and gave me nearly as much as I have paid in altogether. The order has done this for others, also.

"Therefore my advice to all young men is to join a good fraternal society at once. I can almost assure them that they will not have to die to win."

W. T. C., of Washington, D. C., writes: "As I am a reader of thy paper, allow me to congratulate thee on having courage to print what thee knows to be right. 'I refer to the article in the February 1st number, entitled 'Life Insurance.'

"I know whereof I speak, having carried a ten-thousand-dollar policy (straight life plan) for about twenty years, and having paid in nearly or quite \$2,000. Wishing to make some change in the benefits caused the making of a new policy. In so doing I learned the cash value of my policy to be about \$175."

This difference of opinion can doubtless be traced back to the management of the respective companies. If the management of both had been honest and economical, the experience of these two policy holders would have been the same and they would have agreed in opinion.

The radical trouble with so many life insurance companies is that the management has been perverted from caring for the interests of the policy holders to the manipulation of the business for the purpose of piling up "stolen fortunes" for the men in control.

ADULTERATION OF SEEDS

In compliance with the federal law directing the Secretary of Agriculture to test seeds of alfalfa, clover and grass obtained in the open market, and publish the names of dealers in adulterated seeds, the department has issued several bulletins that make astounding revelations of adulterations in seeds.

Of alfalfa seed, some samples tested were over one half bur clover and yellow trefoil. Regarding adulteration of alfalfa seed Secretary Wilson says:

"Three hundred and fifty-two samples of seed of alfalfa were obtained in the open market and examined. Of these, 160, or nearly one half of the samples, were found to contain seed of the destructive parasitic plant dodder; nine samples were found to be adulterated with seed of yellow trefoil, and nine samples adulterated with bur clover.

"Yellow trefoil is not used to any extent as a forage plant in the United States, but the seed is imported from Europe at about five cents a pound for use as an adulterant of red clover and alfalfa seed. Although bur clover is cultivated in the Gulf States, the seed found mixed with that of alfalfa is not the commercial bur clover seed of this country, but a byproduct secured in cleaning South American wool, and is imported from Germany in low-grade alfalfa seed."

Kentucky blue grass and orchard grass seeds were found to be extensively adulterated. One sample of orchard grass tested contained over 98½ per cent of adulterants. Concerning the tests of seeds of these two grasses Secretary Wilson says:

"Two hundred and fifty-one samples of seed of Kentucky blue grass and 265 samples of orchard grass were obtained in the open market and examined. Of these, 41 samples of seed of Kentucky blue grass were found to be adulterated with seed of Canada blue grass, while 133 samples of orchard grass seed were found to be adulterated, the seeds most commonly used as adulterants being English rye grass and meadow fescue, the value of neither being more than one third to one half that of orchard grass seed. That the adulteration of orchard grass is very general is evidenced by the fact that samples containing adulterants were obtained from twenty-four states.

"While Canada blue grass is imported into the United States in quantities varying from 600,000 to 700,000 pounds per annum, it is used only occasionally in this country, and it is evident that the bulk of the seed imported is sold as Kentucky blue grass."

Next Colored Picture Issue

MARCH 25th

The many unique and cleverly illustrated special features that have caused the great demand for FARM AND FIRESIDE during the winter months will be found in plenty in the

Next Big Easter Number

It will be the opening of the flower season, and we propose to tell you by word and picture just how the great markets of the world handle the posies at that busy time, together with other interesting things pertaining to Easter.

A Special by Dr. Bailey

Dean of the New York State College of Agriculture, entitled "The Renewing of an Old Estate," will surely prove a great treat for our readers. The article has to do with famous Oak Hill Farm, in Loudoun County, Virginia, once the property of President James Monroe, and now owned and managed by Henry Fairfax, one of the greatest breeders of hackney horses in America.

A Strong Rural Story

entitled "Bates, R. F. D." we guarantee will please every person who reads it. The complete story will be printed in the next issue. It is a tale that will "strike you right," and we hope your subscription is paid up, so that you will be sure to get the paper.

The Picture in Colors

that we shall give to our subscribers next issue is entitled "Little Bright Eyes," and we are sure it will find a warm welcome in every home that it reaches. We do not want to tell you just what it is like. We want it to surprise you, and we know it will, and gladly, too.

Haskin's Travel Letter

The next issue will contain the last of the popular "Around the World Travel Letters," by Frederic J. Haskin. This last letter is made up of notes jotted in his diary while visiting the various countries, and will not only prove highly entertaining, but very instructive.

"The Strange Adventures of Helen Mortimer"

is drawing to a close, and we needn't tell you that all who are reading it want to read it to the end. In order to get all of this story it will be necessary for you to have your subscription paid up or you will miss the last and important part of the story.

Another Clever Serial Story

will follow the Maude Roosevelt novel, and in addition there will be many other stories of various lengths that will keep the farm home well supplied with first-class and entertaining reading matter. So get busy and

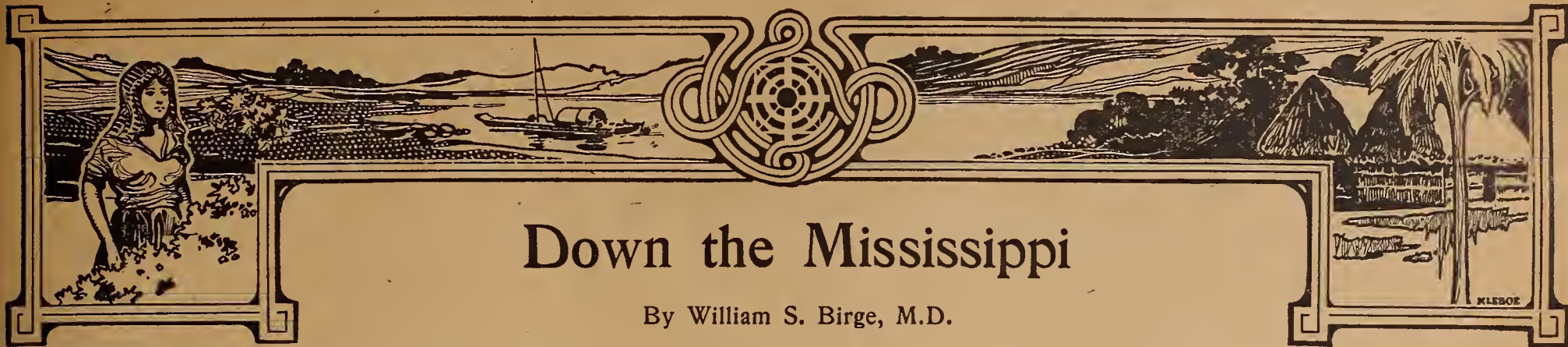
See That Your Subscription is Paid

The rare opportunity to young boys and girls to secure a team of ponies, a piano, an automobile, or some other valuable prize, has never been equalled by any similar paper in the world, and the wide-awake, hustling boy or girl will start right in now and win one of the big prizes offered in

The Great Four-Pony Contest

announcement of which is made on page 30 of this issue; or particulars will be sent promptly to you by mail upon receipt of a postal card from you inquiring about the ponies.

Do Not Delay—Write to Us at Once



Down the Mississippi

By William S. Birge, M.D.

NO MORE picturesque trip can be found anywhere than on the lower Mississippi and its tributaries.

From the earliest days of steam navigation the boats that ply these waters have been the pride of the Westerner and Southwesterner and the despair of the Easterner. They can burn more coal, carry more steam, make more noise, blow up higher, burn down quicker, sink oftener and send more people to kingdom come than any other boats on any other river. But notwithstanding their soul-harrowing bustle and confusion, they made possible the early development of the Mississippi Valley. Wherever there was a stream wide enough and deep enough to float the smallest of boats, there a boat was serving the farmers and planters strung along each side of the waterway, and of these craft the cotton boat was and is the highest type.

Although much of the grandeur of the old-time service is left to the historian, still the grand old river flows on as of yore, the picturesque beauty still remains, and the river craft, though not as numerous or as palatial as in the old days, still ply up and down, and the "roustabout" still does his work with the old-time vigor, laugh and song.

Starting from Memphis, a delightful trip may be made through what may be considered the most interesting part of the Mississippi, taking in, as it does,

than is found on the ordinary steamer, and at the same time the cabin and upper decks are cut away so as to admit the piling of cotton clear up to the "Texas," or pilot-house deck. In this way it will be seen that more than a third of the boat's load is overboard—that is, carried on the guards over the water. So completely are the cabins and upper works concealed, that viewed

from the outside, the boat presents more the appearance of a huge raft loaded with baled cotton. A strict watch is kept against danger from fire on these boats, and no smoking is allowed outside the cabins. On the wharves this precaution is carefully observed, and in New Orleans and other cities where cotton accumulates in large quantities a fine and imprisonment are enforced for wilful violation of these rules.

Nowhere can one see the necessity

and value of the negro to the South more clearly exemplified than in the "roustabout." The manner in which he handles the heavy freight on the river boats is truly wonderful. No other class of laborers could handle it with equal ease and facility. No matter what it may be—a piano, cook stove or bale of cotton—up it goes, slung on handle bars, onto the shoulders of these dark-skinned "beasts of burden," for it is a question of brute strength, this scrambling up a bank, steeper than the roof of a house in many places, and landing the burden safely on the bluff.

When not at work the "roustabout" spends much of his time and most of his money in that game so fascinating to the negro throughout the South, "craps." At the end of a trip nine tenths of them are in possession of the sole dollar that is withheld by the boat, that they may not

be "dead broke" when they are discharged at the home port. The remainder of their wages, with the exception of what they have spent, is in the pockets of a lucky few. Every boat is compelled by law to provide a bunk and blanket for each member of her crew, but a "roustabout" has little use for either; the top of the boiler in winter and a deck plank in summer are preferable to "dem shelves," as he characterized the bunks when his attention was first called to them.

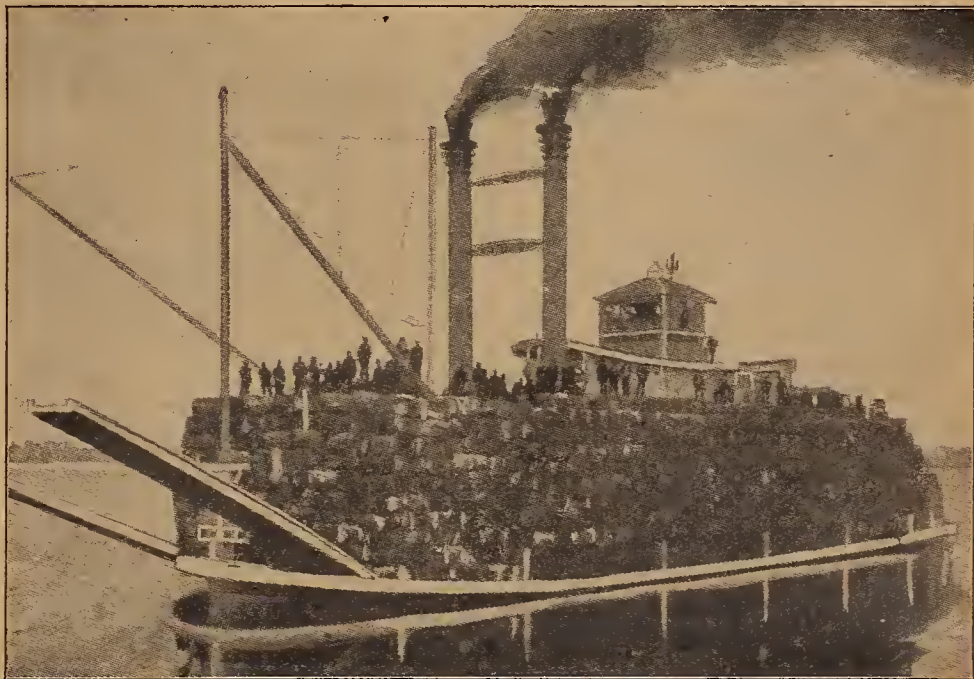
The rise of water in the Mississippi is sometimes fifty or sixty feet, and as each planter insists upon having his freight put on the top of the bank, though scrupulously refraining from spending one cent's worth of labor or one moment's time in making it accessible, it is a serious matter, when the river is low, to cope with the difficulty. And if it is raining, as it too often is during the busy season, the "roustabouts" have to climb this hill through the slipperiest, stickiest mud that ever vexed the soul of mortal man. But up they go with a barrel of kerosene or whisky on a chain barrow, eight under the barrow and as many more before and behind, pulling and pushing the load up the hill. If sixteen men are not enough, thirty-two are—the barrel must go up. If the goods go to a small country merchant in a small country town, he will often insist upon having



A LITTLE PICCANINNY



DURING THEIR IDLE MOMENTS



MISSISSIPPI RIVER BOAT LOADED WITH COTTON

aside from the cities and towns, the numerous plantation landings, where anything in the shape of passengers or freight may be received or landed.

The distance between Memphis and Vicksburg is four hundred and three miles, and the boats make one hundred and four regular landings. Being of very shallow draft for such large craft, they can run their nose into the bank almost anywhere. The large steamer "Natchez," of the Anchor Line, will carry, when loaded to her full capacity, four thousand five hundred bales of cotton, and draws with full cargo only about twelve feet of water.

To appreciate these boats it must be borne in mind that at times they must navigate very shallow water, hence their great breadth of beam and comparatively low hull; they must be able to run on two feet of water, carry a good load on three or four feet, and not draw more than ten or twelve feet when loaded to their fullest capacity.

A steamer loaded with cotton is an interesting and novel sight. Of course, with so shallow a hull, only a small part of the load can be carried in the hold, the greater part being on deck, and to increase the carrying capacity the main deck is extended far enough over the water to give her a third more deck room



BUSY SCENE ON NEW ORLEANS WHARF

them put it in his store, which may be a block from the landing.

And therein lies the difference between steamboats and railroads. The latter puts the freight in its warehouse, which may be a mile from town, and notifies the owner to come and get it; the steamboat puts it in the owner's house, and begs his further patronage. An opposition railroad is practically an impossibility; a few thousand dollars will put on a boat which will ruin the profits of the best of lines. Thus the boats carry cotton from up the Red River and other tributaries of the Mississippi to New Orleans for one dollar a bale; the railroads do the same so long as the boats run, but when they are compelled by low water to lay up, the rate goes up to two dollars and twenty-five cents a bale, dropping again to meet the boats when the water permits them to run. The fare from Memphis to Vicksburg is seven dollars by boat, and includes bed and board; by rail it is ten dollars, and the passenger boards himself. As it takes three days to make the trip by water, this is but about two dollars a day for hotel board, with four hundred and three miles of travel for nothing.

The channel of the Mississippi is extremely tortuous, and is marked by

[CONCLUDED ON PAGE 16]

Synopsis of Previous Chapters

"An old lady going abroad wishes a young woman to act as traveling companion; must not be over twenty-five, and be able to speak French."

Helen Mortimer, a poor New York girl, gets the position. Mrs. Harold Pancoast, her employer, entrusts her with a small steamer trunk, the contents of which are of great and mysterious value. Mrs. Pancoast fails to put in an appearance, and Helen sails alone. Helen makes the acquaintance of Mrs. and Miss Watson, the latter of whom absorbs much of the attention of one Guy Halifax. A George R. Barrington forces his attentions on Helen, and Worrendale, another character, seems to be in league with Barrington. A telegram containing a London address is stolen from Helen's stateroom by Madame Patrie. Charles Lawson, a spendthrift, introduces himself to Helen. Halifax helps Helen to the train, and then leaves to look after the Watsons. Barrington took the same coach, and when Victoria was reached, he helped Helen to a carriage and asked for her trunk check. Helen, suspicious, insisted that he leave his grip and coat in the cab. He did not return, so Helen, in desperation, directed the cab-driver to the address Halifax had given her, and started alone and without the trunk. In the coat that Barrington left Helen finds the stolen telegram. Helen cables Mrs. Pancoast that the trunk had been stolen, and she gets instructions that her employer had sailed. A man named Black attempts to recover Barrington's papers by entering Helen's room in the dead of night. Helen frustrates his plans by wildly firing a revolver and arousing the whole house. Helen gets notice to vacate her room. She starts out in a London fog in search of another stopping place, and is kidnapped by Black. She escapes from the cab, gets lost in the fog, and enters a men's club where she is rudely handled. Worrendale unexpectedly rescues her. They encounter Black as they are leaving the den of vice, and Helen is soon a prisoner in the home of Mrs. Morris, alias Madame Patrie, where they vainly endeavor to locate Barrington's papers. Helen outwits them and is released. She learns Mrs. Pancoast is in London. At the boarding house a Mrs. Featherstone takes a liking to Helen and shows her about the city. Helen fears she is being spied upon by detectives, and her life becomes miserable. Helen goes to Paris as an amanuensis of Madame Durozzi, or Mrs. Featherstone, as she is known in London. Lawson proceeds to show Helen life in Paris, and their engagement results. Lord Haldon, father of Halifax, dies, and the son succeeds to his title and estates. Ethel Watson encounters Helen at Madame Durozzi's studio and gets a cold reception. Madame D. loses confidence in Helen and discharges her. Lawson's wicked character dawns on Helen and the engagement is broken. Mrs. Pancoast arrives in Paris. Valuable jeweled necklaces that Lawson had given Helen and which she intended to return are mysteriously stolen. Helen goes to Mrs. Pancoast, who listens to her story with great interest. Together they take up the fight for the recovery of the stolen trunk. Helen is ordered to disguise herself in one of Mrs. P.'s suits, and heavily veiled they start out for Forty Champs Elysees, an address mentioned in one of Barrington's letters, and which letters, much to the disappointment of Mrs. Pancoast, had been left above the wardrobe in the old Oakley Street (London) boarding house.

IT PROVED to be a handsome apartment house a little way below the Arc de Triomphe, with a concierge in livery standing at the porte-cochere.

"I thought I was to remain in the cab, but Mrs. P. said she would like me to accompany her and as we entered the doorway she asked the concierge if the Countess de Chateaux was at home. He said yes, and saw us to the elevator, which stopped at the third floor.

"There was a handsome door on either side of the hallway leading into two separate apartments, and Mrs. P. approached the one on the left, and touched the bell. As she waited for the door to be opened, she wrote a line on her card, which she handed to the swell-looking butler, who opened it, saying in French:

"How are you, Jean? Do you remember me?" And he, after a look of wonderment, returned, "Ah, oui, Mademoiselle, I am glad to see you again. Come in, the Countess will be so charmed!"

"This sounds familiar in English, but in French it was perfectly respectful and gracious. We were shown into one of the most beautiful drawing rooms I have ever seen. Everything was most costly, but of such unostentatious and dignified taste that this fact was disguised instead of being flaunted in one's face, as it is in the houses of the newly rich.

"The Countess de Chateaux is one of the most prominent women socially in France," whispered Mrs. Pancoast, while I was taking in the beauties of the room. "She is old now, but still charming. I used to be her—well, amanuensis, I suppose one would call it, though I was more her friend and companion. I lived with her five years, from the age of twenty-two to twenty-seven, and I have known many happy hours here. Dear old soul! I wish I had never left her!"

"Why did you?" I asked.

"Oh, to commit the folly of marriage! She used to take me to the Riviera, and there, three years ago, I met—my husband!"

"The last two words were uttered more bitterly than I have ever before heard her speak, and I glanced up to see that her face had hardened, and her eyes were fixed on vacancy with a look of brooding misery, that seemed out of keeping with the buoyant nature she had ever revealed to me.

"At the same moment there was a faint rustle of silk in the room beyond, which led into this one by a heavily curtained doorway, and a tall, well-preserved woman of about seventy approached us with the easy noiseless step of an aristocrat. She stooped very much, and her white hair, probably partly false, was piled up in lovely soft puffs above a thin, distinguished-looking face, pale as ivory, with fine, clear-cut features, and dark eyes that must have once been beautiful, but were now filmy and heavy-lidded. She wore a gown of soft black silk, that scarcely made a sound as she moved, and over her shoulders, tied in a loose knot in front, lay a white scarf of the most exquisite real lace I ever saw.

"She held out her thin white hands to Mrs. Pancoast, and in a trembling, tender voice said, 'Ah, Suzanne, ma chérie! This is good of you!' and kissed her on both cheeks.

"This is my young friend, Miss Mortimer," said Mrs. Pancoast; and the Countess gave me one of her frail hands, and said

The Strange Adventures of Helen Mortimer

By Maude Roosevelt

she was happy to meet me, for any friend of Suzanne's was always welcome in her home.

"And how are you, my dear?" she added to Mrs. P., drawing nearer the window. "Let me see you! Ah, beautiful as ever, and yet there are some traces of trouble here! Have you been happy always, Suzanne?"

"Mrs. P. smiled and said, with the sweetest sadness in her voice, 'Is any one always happy, Countess?'"

"Ah, no, no, my child; very few of us have even our share of happiness. Yet I had hoped your road would be easy!"

"And how is Monsieur the Count?" asked Mrs. P., as though wishing to change the subject.

"Ah, dieu! the same, always the same—a living corpse!" said the Countess. "You must come in to see him; he will be so glad, if anything can make him glad now!"

"And your daughter, Madame de Pontenac?"

"Charming as ever, and so happy since the boy came!"

"They talked for some time about such matters, then Mrs. Pancoast said, 'Countess, I have something to confess to you.'"

"The old lady looked at her anxiously. 'To confess!' she said; and Mrs. P. replied, 'Yes; it is a confession of stupidity and carelessness, but not of intentional wrong. Do you remember that copy you gave me of the mechanism of your safe?'"

"The Countess gasped some word in French, and said, 'You have not lost it, surely!'"

"Yes, I have," returned Mrs. P. "I had intended to destroy it, but somehow I forgot, and then when I remembered and looked for it, it was gone!"

"Gran dieu! When? How long ago? But—was my address on it?"

"No. You remember it was typewritten on a piece of blank paper; we took that precaution, you know, for fear I might—"

"Ah, well, there is then no danger," said the Countess in a tone of relief. "No one could know what safe it related to."

"But the trouble is," returned Mrs. P., 'some time before I explained what it was to a friend, one whom I then trusted and who knew your address.'"

"Ah! And this person?"

"I have reason to believe he is planning to rob you. He has sent a copy of that paper to a person in London. That copy has fortunately fallen into the hands of Miss Mortimer, but this man in London could by now have received another copy from America."

"The old lady was staring at her in terror. 'What shall I do?' she questioned. 'It would kill me with fright and kill the Count if any one should attempt to rob us. Do they know what is in the safe?'"

"I unfortunately told my friend, bragging of the trust you had in me, that it contained the historic jewels of Madame du Barry and all the other priceless things. I was ignorant and foolish, but I trusted him then as—as my brother, more even—and I believe he stole the paper!"

"Oh, what shall I do?" repeated the old lady, clasping her thin hands and looking helplessly about the room.

"The only thing to do," said Mrs. P., 'is to have the safe moved at once and published the fact in the Paris "Herald." You could have it sent to the Credit Lyonnaise for a time, where it—'

"Ah, now I see what that man came here for!" interrupted the Countess excitedly. "A few days ago a man came in the evening to examine the electric lights, and said there was something wrong with our wires that was affecting those in the apartment at the top of the house. But my daughter and some friends were here, and among them Madame Lafarge, who, as you know, lives in the top apartment, and she said there was nothing wrong with her lights, and the man must be making a mistake, so we sent him away. We were all very puzzled by it, although it never occurred to us that he was intending to rob the safe."

"Mrs. Pancoast got up, appearing very excited by this information. 'It must be gotten out of here at once,' she said. 'I shall attend to it myself, and return to superintend while the man from the bank makes an inventory of everything contained in the safe. In the meantime, Countess, it will be wise not to let any one enter the apartment, man or woman, until I come back with some one who can protect you. I shall go direct to the Credit Lyonnais, order them to come at once, and then to the "Herald" office and have a notice put in to-morrow's paper. I have much to tell you of my life since we parted, so I hope we shall have a long talk when I return, which will probably be within two hours. I could not sleep to-night, feeling you are in this danger through my fault.'"

"The Countess thanked her, and a few moments later we were in the cab again, tearing through the streets of Paris at a break-neck pace.

"I must get to London to-night," Mrs. Pancoast said when she had told the coachman she would pay him extra if he went at his horses' utmost speed. "Even now it may be too late! I must get those letters, and discover who this Barrington is, or else I must give up all hope of ever regaining my trunk, and I must get it! I must!"

"She was terribly agitated, and my cu-

riosity concerning the contents of that trunk had become so intense I could scarcely suppress it; but I knew it would be futile to question her, and felt it would only irritate her for me to do so, as she had shown me plainly upon several occasions she did not wish to confide anything save what she volunteered.

"If you will do me a service, I shall be very grateful," she said presently. "I may be detained for some time when I return to the Countess, and shall consequently not have a chance to pack, and I must catch that four-o'clock train for Boulogne, in order to get the channel steamer. If you will return to the hotel and pack my things it will be a great help. You can take this cab right back there, when we reach the bank, and I shall meet you at the hotel in time to go on the train."

"I was rather disappointed not to be able to go back with her to the Countess, and see all those jewels and things, but of course I did not let her know that I was, and said I should be only too glad to do as she asked, for I was glad to feel I could be of some service. So we parted at the bank, and I returned to the hotel and had everything packed when she came in at three, and we had a great rush for the train."

"I was glad to leave Paris, I who have longed all my life to get there! But my last days in it had been so miserable, all the pleasure of the beginning was wiped out, and its very beauty had become offensive. Of course, I had had a wretched time in London, too, but it had been so entirely different an experience, that when compared with the heartache and shame I had suffered in Paris, even the horrors of the fog appeared trivial, for there is nothing in the world so crushing to one's courage and interest in life as to find one's faith and affection betrayed."

"I hate even the thought of Lawson so now that I really wonder if I could have loved him, and in my heart I don't believe I did. His attention flattered me, and I was very happy in believing he cared for me and that I was to be his wife, but I never had the feeling of supreme happiness in his mere presence which I felt that one evening on the ship when Halifax was with me. It only goes to show how wrong and foolish it is for a girl to think of marrying a man unless there is that affinity between them, that makes him represent the entire world to her. If it were not for the loss of those necklaces, I think I could be reconciled to the whole miserable affair, for bitter as it was, had I married him I should probably have suffered much more."

"When we were safely settled in the train and tearing away toward Boulogne Mrs. Pancoast, who had scarcely spoken on the way to the station, said, 'I am so relieved to feel that matter of the safe is settled.'"

"Did you get it out?" I asked; and she said, 'Yes, and it created such a sensation in the street that if there was any one of Barrington's party prowling about, he must have noticed it. Oh, if I could find that man! I know whom he is in league with, and I know they can inflict upon me the most bitter punishment if I betray them to the authorities, but even if I must resort to that, I mean to track them down!'"

"She spoke more to herself than to me, and her face had turned quite pale, as though from some fierce passion. She was silent after that for a long time, seeming so absorbed in her thoughts that I did not dare to break in upon them, and once I heard her say under her breath, 'Base scoundrel!' in a tone of most intense hatred."

"It was snowing when we reached London, and a heavy stillness hung over the city. The familiarity of Victoria Station recalled all the horrors of my first arrival there, and depressed me so, I looked forward fearfully to what might be in store for me this time in this great town."

"We got into a cab, and rolled through those same streets that had carried so much terror to my heart that evening. Now they appeared so different, with the pale flakes falling through the glow of lamps, and whitening the head and shoulders and umbrellas of people who passed to and fro, through the silence, like spirits. Even our horse made no sound on the soft carpet of snow, and the great buildings showed ridges of white, as though arrayed in ermine-trimmed winter garments."

"We stopped at a small family hotel on Sloan Square, where Mrs. Pancoast took two adjoining rooms. She scarcely spoke at dinner, and looked quite worn out."

"Evidently there is something tragically serious weighing upon her mind, in addition to the loss of that trunk, for her actions continually express suppressed rage, and a sort of reckless determination to accomplish what she has undertaken to do, at all odds."

"I asked her why she did not go at once to the Oakley Street house and get the letters, and she replied:

"No, it would not do to rouse their suspicions by going at night, especially as those men have been there to inquire for a man's coat. I must go to-morrow and engage that room. If only it is still vacant!"

"I could not write then, which was last night, for she insisted upon my going to bed, saying the next day would probably be a very trying one, and we should both need all our strength."

"Well, this morning we got out early and drove to Oakley Street. Mrs. P. left me in the cab, and entered the house, where she

remained a long time, and I thought she was surely getting the letters. But presently she came out, leaving the door open behind her, and I saw the maid I knew standing by it."

"The room is taken," said Mrs. P. in a hurried undertone, "and the landlady is out. I have explained to this maid that you are my sister, and that you left a coat belonging to our brother and a bag containing important papers in the room you occupied here; and I have insisted upon being allowed to get them. Come in with me, so she will recognize you. I intend to get those letters, whatever they say or do; I can manage the maid, and if we once get into the room, the rest will come easy. Come, and remember you are my sister!"

"I followed her into the house, and said to the maid, 'How are you, Mary?' to which she replied, very curtly, 'How do do, miss; I'm afraid I can't let you into the room, miss; the lady as 'as it isn't in, and Miss Davidson wouldn't like me to let you go.'"

"Well, we are going into it to get the things my sister left there," said Mrs. P., pushing past her."

"There isn't anything belonging to Miss Mortimer in the room," returned the maid. 'We've cleaned it all, and nothing—'

"Lead the way, Helen," interrupted Mrs. P., making me go before her, and added to the maid, who stood gaping helplessly, 'You may come in with us, and see we do not disturb anything.'"

"We were now far up the hallway near the stairs; but at that moment there was the sound of a key in the front door, and the maid ran back to open it for the landlady."

"Hurry!" whispered Mrs. P., and we hastened up the stairs, hearing the maid say excitedly, 'Miss Davidson, these ladies insist upon going up to Mrs. Brown's room. I can't stop them, miss!'"

"Who are they?" exclaimed Miss Davidson, and ran after us, crying, 'Stop, please! I can't allow you to go through my house like this!'"

"She came up with us on the second landing, and recognizing me, cried, 'You! How dare you force your way into my house!'"

"My sister has come to get some things she left here!" said Mrs. P. haughtily. 'You have no right to speak to her like that, and I shall not allow it!'"

"I have a right!" returned the other in a shrill, piercing voice. 'She behaved shamefully while here, and disgraced my house!'"

"You had better be careful!" said Mrs. P. slowly. 'You may get yourself into serious trouble by making such assertions. Remember, she has her side of the story to tell, and it would not be of advantage to your house if she made it public; and I am perfectly prepared to go to law about the matter.'"

"I tell you there is nothing of hers in that room," returned Miss Davidson, somewhat more quietly."

"That we shall soon prove," remarked Mrs. P., as we advanced up the stairs, followed by the landlady, saying, 'I shall not allow you to rummage through my guest's things; I shall call a policeman!'"

"Do so, if you think it wise," replied Mrs. P., 'but I shouldn't advise you to. My sister hid the things we are in search of on top of the wardrobe. If they are not there, we shall retire, and no harm will be done; we shall not disturb anything in the room; you need not fear.'"

"We continued up, while Miss Davidson ejaculated vociferously, 'Outrageous! Disgraceful! Such a thing! I shall never receive another American in my house.'"

"As we entered the room I couldn't help glancing about for the bullet holes I had made in the wall, and saw two of them yawning black, like round ink spots."

"The same chair I had mounted on before was near the wardrobe, and I placed it so I could get up on the back of it; but I was trembling so with dread that I should find the things gone, I could not steady myself."

"I shall hold you," said Mrs. P., and balanced me by one hand, while with the other I felt over the woodwork, and, with a thrill of delight, touched the coat!"

"It is here!" I cried, and lifted it carefully, taking my little bag from under the folds."

"You see we were right!" said Mrs. P., turning on the landlady, who stood open-mouthed watching us. 'And now let me tell you, Madame, that unless you retract the evil stories you have circulated concerning my sister, I shall be obliged to resort to some legal method of forcing you to. That man you had in your house at the time my sister was stopping here was a professional thief, and it was to get possession of this bag, containing valuable papers, that he entered her room.'"

"I have not circulated any stories concerning her," returned Miss Davidson meekly. 'You have!'"

"You have! I said, although I had no positive proof that she had. 'You told your sister on Queen Anne Street things that have got to friends of mine, and hurt my good name very much.'"

"I told her nothing but the facts," she replied, 'and they were bad enough. Every one in the house—'

"Mrs. P. stopped her with an imperative gesture. 'Listen to me,' she said severely. 'I am an intimate friend of Lady Hamilton, and I know her son, who is a judge, will take this matter up for me, and if I wish, it will be pushed to a point that will ruin both you and your sister. This I intend shall be done, unless you make some atonement for the wrong you have done my sister by spreading calumnious stories.'"

"The woman looked very frightened, her thin face went pale, and her eyes were so wide they seemed ready to fall out."

"What can I do?" she whined. 'Haven't I had enough worry over the affair?'"

"You can write a letter at my dictation," returned Mrs. P. 'Sit here at this desk and write it.'"

"The woman did so, as though obeying

hypnotic suggestion, and Mrs. P. dictated the facts of the situation to her, and made her sign it.

"When we were in the cab again Mrs. P. said, 'This letter will serve you some day, perhaps, if the subject is ever brought up. I don't suppose it ever will be, but still you have suffered enough in this affair, and I should like you to have some means of exonerating yourself.'

"How you ever got her to do it, I can't understand," I said. "She seemed hypnotized." "I knew the sort of woman she was at first sight," she returned, as she took Barrington's letters from the bag. "They are all cowards at heart, and the mere mention of the law terrifies them. Besides, they live in holy adoration of titles, and I knew—Ah!"

"A little cry escaped her as she beheld the address on one of the envelopes, and she took the letter out hastily, letting the envelope fall in her lap, and I saw it was the one addressed to G. M. de R. Herald.

"This letter explains everything to me," she said presently. "At least it makes clear certain important points. It was not intended for Barrington originally, I don't think—and yet—I can't tell who this Barrington can be."

"She was silent a moment, then said, 'Helen, I am going to take you into my confidence about the whole matter, for you have shown yourself to be my friend, and as we are now associated, it will be a great comfort to me to—'

"She had opened a second letter, and broke off abruptly to read it. She read it through several times, and then said, 'Ah, I think I have solved this! Look!' and spread it out on her lap. I leaned over her and saw it was the one which had puzzled me so much, you remember, containing these words, which I shall give you again, so you may understand how she explained it:

"Write all the circumstances here. Get impression right leg. Order nitrogen. Beware of aggravating rheumatic decrepitude. Cable instantly rough deduction either case. No amount may exceed demands. Note every little emotional heaving. Remark every minutest indication toward relapse or melancholy."

"You see," said Mrs. Pancoast, "it appears to relate to some person under medical treatment; but if you combine the first letter of every word you will see what is hidden in them, and it is this: 'Watch girl on board 'Cedric,' named Helen Mortimer.' The proper names are formed by the first letter of each word going backward instead of forward, as in the others. You see here, 'Cable instantly rough deductions either case,' is 'Cedric.'"

"It was so clear and simple that I felt like a fool for not having guessed it long ago, although even if I had it would not have benefited me much."

"You see, this was addressed to Barrington to the ship," continued Mrs. Pancoast, "and must have been sent by some one who knew my plans, and who that person is I think I know—it must have been the person to whom these other letters are addressed, G. M. de R., a man I considered my friend, and above such treachery!"

"By the time Mrs. Pancoast had read those Barrington letters over several times, and discussed them, we reached the Grand Hotel where we were to lunch, and I was sorry, fearing she would forget she had promised to take me into her confidence and tell me the mystery of all this trouble. When we had entered the hotel, she went at once to the telegraph desk, which was in the entrance hall, and wrote out a long despatch."

"She made a mistake at the first writing, and as she pushed the blank from her, my glance fell upon it inadvertently and I read the name Oscar Mannering. There was more written, but I turned away, knowing it was not intended for me; and in doing so, my eyes met those of some one standing a few feet beyond, gazing at me in the most extraordinary manner."

"My heart simply stopped beating as I recognized it to be Guy Halifax, or rather Lord Haldon, as he now is, and I turned my back on him swiftly, that he might not see how the sight of him affected me."

"I shall be engaged here some time, Helen," said Mrs. Pancoast, "as I have several despatches to send, and must telephone, so don't stand. Go into the tea room there to the right. You will find some papers to look at, in the reading room beyond."

"I was glad to get out of Haldon's view, and obeyed immediately, but my knees trembled as I walked, and I felt he was watching me with contemptuous curiosity. It seemed so hard that he should have come again across my path, just when I was beginning to forget him, and I hated myself for the emotion I felt."

"There was no one in the tea room but two men sitting in a far corner absorbed in conversation, and I sank into a deep chair near the fireplace, where great logs were burning. The high back of the chair was turned toward the door, for which I was grateful, as it completely hid me from observation in that direction; and I had settled myself comfortably, to think and get myself calmed down, when a voice, his voice, said quite near to me, 'Miss Mortimer, this is probably not in good taste, but even at the risk of a snub I must decline to recognize me.'"

"Well, my dears, you can imagine the effect this had upon me! For a brief time I could do nothing but stare into his handsome, troubled face, and as I did so I noticed he grew pale."

"Don't spare me," he said. "If I am intruding undesired, tell me, and I shall offer my apologies."

"It is not that," I replied. "If you wish to know the truth, I thought—you did not seem to recognize me."

"How could I make any sign of recog-



"Miss Mortimer, this is probably not in good taste, but even at the risk of a snub I must know why you decline to recognize me."

nition when you turned away the instant you saw me?" he asked. "Especially as your silence had already told me I was forgotten."

"His voice was at once reproachful and appealing, and so entirely different to what I had expected, that I was at a loss how to answer, so I said, 'I am afraid there has been a mistake, Lord Haldon. I have been unjust to you.'"

"You have been unkind to me," he returned, "for you promised to let me see you here in London."

"I know I did, but so many strange things have happened since we parted, and I thought—I had reason to believe you had heard some false stories about me, and had condemned me on them, as others have, without a hearing. I couldn't bear to face that, so thought it best not to reply to your letter."

"He was regarding me with a strange look of puzzled wonderment. 'Do you mean to say you think I should give credence to boarding-house gossip about you?' he asked with emphasis that rang to my heart. 'You may not know me well enough to have more confidence in my loyalty, but after the first hour we ever spent together, I knew you to be incapable of such things as that wretched woman dared attribute to you, and I told—my informant so.'"

"Was your informant Miss Watson?" I asked, now grown courageous with new joy, that made anything in the past seem trifling."

"Lord Haldon hesitated, then he said impulsively, 'Yes, she was my informant. We were good friends until then; but I couldn't stand for that, so we had a rupture.'"

"He took a chair near me, and leaning forward, looked at me with a sort of critical compassion that affected me deeply."

"Tell me," he said, "have you been alone all this time? You look thinner, and troubled."

"I have been alone most of the time," I returned, affecting gaiety to keep from revealing how near I was to tears, "and I have gone through the trials of a dime-novel heroine! But it is all over now, thank heaven! I have at last found my friend, whom I lost track of for a time, owing to a series of trying circumstances."

"If only you had written me," he said, "I might have been able to have helped you. At least you could have depended upon me as a friend, and I should have served you at any sacrifice to myself, and considered it more than an honor."

"It is good of you to have such faith in me, after all the evil reports that must have reached you," I said, "and I appreciate it more than I can say. Heaven knows I needed you dreadfully more than once during these past two months, and with a good

friend to advise and protect me I should have been spared untold misery."

"We talked for nearly an hour, and I related to him some of my experiences, particularly the one at the Oakley Street house, and showed him the letter Mrs. P. had forced the landlady to write for me. He grew very grave as he listened, and said, 'It is shocking to think in what peril a woman is placed who is alone in the world! I shall never forgive myself for not writing you again. I should have done it, but when I had my sister inquire if you had received the letter forwarded to Oakley Street, and learned that you had, my blasted pride prevented me seeing what position you were in, and how you needed a friend.'"

"Here Mrs. Pancoast joined us, and as we arose, I said, 'May I present Lord Haldon, Mrs.—' but before I had spoken her name, she was holding out her hand and saying, 'How do you do!' and he exclaimed, 'Why, by Jove! how are you, Mrs. Faulkney? Lily will be delighted to know you are in town!'"

"I am not Mrs. Faulkney now," she returned.

"What!" he ejaculated. "You don't mean to say—"

"Yes, I do; we are divorced, or rather shall be in a short time. I have arranged to take back my own name legally. I shall go out to see your sister as soon as I have settled up some urgent affairs here in town, and tell her all about it."

"Lord Haldon looked thoughtful as she was speaking, then he said, 'I say, Lily is stopping at Avondale with me over the holidays. Can't you come out for a week or two, and bring Miss Mortimer? I should like you to know my sister, Miss Mortimer,' he added, looking at me; and I made some conventionally polite remark while waiting to hear what Mrs. Pancoast would reply, my heart beating wildly, as you can imagine, with anxiety for fear she would decline."

"I saw her glance from him to me, and a little smile showed in her eyes. 'Very well,' she returned, 'that will be charming. I shall let you know if everything goes well as soon as I am free. To-day I am so terribly rushed I can't be polite, and unfortunately we must now attend to the inner man.'"

"Why don't you lunch with me? We can get over to Dieu Donne's in ten minutes," asked Haldon and she replied:

"No, thanks, impossible. That would mean courses and delay. I have our bite ordered here."

"Haldon glanced at me and smiled, saying, 'I have received my congé distinctly enough, haven't I?' and added, as he shook hands with us, 'Well, I have your promise you will spend the holidays with us at Avondale, so this is but au revoir.'"

"We parted in the entrance hall, and Mrs. P. and I hurried to the breakfast room leading off from it, a softly lighted place, still as the grave, where noiseless butlers stood about, and a large, open fireplace glowed with burning logs."

"He is a charming fellow," she said, as we seated ourselves at a small table; 'so above the usual run of men! I couldn't wish greater happiness to any girl than that he should care for her.' She glanced at me curiously, then added more hastily, 'But we must consider only the matter in hand at present. Tell me, did you say that woman, who went under the name of Madame Patrie, is also known as Mrs. Morris?'"

"Yes, that I believe is her real name," I returned, "for Worrendale called her husband Morris."

"Can you remember her husband's first name? Did you ever hear it spoken?'"

"Yes, it was Harry," I returned, remembering only too well all the details of that painful experience under their tyranny."

"Harry!" she ejaculated softly. "Then I am right. My dear, this woman is one I did a great service for once. She was under a cloud for a crime that no one but myself knows of. I loaned her money to get away from Paris at a time when I had nothing myself save the salary I got from the Countess de Chateleux. I pitied her, although I knew her to be guilty; but she had suffered so much! I know she will help me—she would not dare to refuse to help me! I have just learned through the telephone that she married a man named Harry Morris. If only you could remember in what part of the city that house was they took you to in the fog."

"I couldn't possibly remember, for I did not see it," I returned. "Besides, I know nothing of London."

"You say there were wide steps leading up to it?'"

"No, there were not. That was the house I went into opposite. The place they led me into had only a few steps, and the door led into a narrow hallway, at the end of which was a steep staircase."

"Ah! Were the rooms old-fashioned looking or modern?'"

"Decidedly old-fashioned," I returned; then an idea came to me, and I said, "Isn't there a Harry mentioned in one of those letters I got from Barrington's coat?'"

"Quick as a flash she had the letters out on the table, and glancing through them, exclaimed, 'Yes, you are right! Look! 'Harry's place 32 Strand!'"

"Then she stared at me wide-eyed, and continued thoughtfully, 'That may be the very place! We shall go there at once. Oh, if it should prove a right clue, I shall be grateful to you all my life!'"

"Here the waiter came with our luncheon, and when he had withdrawn Mrs. P. said, 'Now, while we have this little time before us, I shall give you a brief outline of what has brought me to this condition. Three years ago, while in Nice with the Count and Countess de Chateleux, I met a wealthy and attractive Englishman named Winston Faulkney, with whom I promptly fell in love. He came to see me in Paris, and a few months later I married him. We spent one year traveling from place to place, and there were many things that puzzled me in his actions, but I was unsophisticated, and I loved him, so never suspected that there was anything illegitimate connected with his life."

"About eight months ago we were invited to visit Lady Hamilton, who is a dear friend of the Countess de Chateleux, and who took quite a fancy to me and my brother Oscar, who is my only surviving relative, and whom I love better than my life. He also was visiting Lady Hamilton at the same time, for as we were very poor, he was engaged here in London as under secretary to Lady Hamilton's brother, the Judge. Unknown to me, he was living rather wildly, and had gotten deeply into debt, and was consequently an easy prey to my husband's temptings."

"While we were visiting her, Lady Hamilton fell very ill, and we were obliged to leave. Immediately afterward my brother disappeared, and I thought he was dead, that he had perhaps been mysteriously murdered, and I wanted my husband to engage detectives to trace him. But he told me not to worry; that Oscar was all right, and was merely in hiding, because he had gotten himself tangled up in debts and trouble here in London, and that he (my husband) would settle everything quietly, then Oscar could return and nothing would be suspected."

"To prove the truth of his story, which I was too guileless to doubt, despite many things in his behavior that had perplexed me, he showed me some of my brother's debts, which were appalling, and although I was heartbroken to know Oscar had come to this, I was naturally very grateful to my husband for shielding him. We then went to California, and one night, while my husband was away in New York, my brother came to me secretly from Chicago, and told me that the man I had married, whom I loved and trusted, was a professional thief!"

"Oh!" I gasped; but she said, 'Wait, this is not all, not half! And I must hurry, for we have very little time. He showed me such proofs of his statement that I could have no doubts left, and more horrible than all, confessed that, under my husband's directions, he, Oscar, who is so dear to me, had robbed Lady Hamilton of family jewels valued at five thousand pounds. These jewels he had in his possession pending my husband's return, he having gone to make sure no one was on their track. It was arranged they should then be divided between him, my husband and a man named Gabriel de Romné, and taken to different parts of the world to be disposed of, and each was to take a specified portion of what the lot brought, my husband, of course, to have the major part."

[TO BE CONTINUED NEXT ISSUE]

Down the Mississippi

[CONTINUED FROM PAGE 13]

countless guide posts set up on the banks on either side. The pilot lays his course from one to the other, which oftentimes means zigzagging back and forth for many miles. At night a powerful searchlight is used to assist the pilot at his work, and to light up the landings when taking on or discharging freight. It is an interesting sight to sit on the deck and watch the shores as the great light is swept along them; plantations, cotton fields, negro cabins, shanty boats, all pass before the eye like a constantly changing panorama.

The rapids of the river are intersected by numerous sand bars, which are a constant menace to navigation. These are marked by square stone piles narrowed toward the top like a pyramid, and with steps up the side, leading to a light, which is taken care of and lighted every night by a keeper appointed by the government for that purpose.

During high water in the Mississippi the levees are the only means of protection afforded the surrounding country on either bank. In some places the levee is built within a few yards of the river; in other places it is back a mile or two inland. At high water the scene is a strange one as viewed from the deck of a river boat—the water even with the top of the levee, in some places overflown, you seem to be sailing about in an elevated canal, the surrounding country of rich plantations, broken here and there by little villages, lying from fifty to one hundred feet below you. The bed of the river is constantly changing, the bank washing away in some places and bars forming in others, so that what is dry land at the present time may six months later be a river or lake open to navigation. This is exemplified in Lake Palmyra, through which the boats now pass. It is an entirely new channel, where two years ago it was dry land. Frequently at a landing there will be only a rudely constructed shanty, or sometimes a tent, for storing freight. The reason for this is easily explained when one takes into consideration that the landing place of to-day may on the morrow be surrounded by water and be half a mile from the shore.

At almost every landing of any importance one will observe a number of house boats, or shanty boats, as they are called, anchored a few hundred feet from the bank. They are, for the most part, whisky boats. They take out a United States liquor license, and without a state license sell all the whisky they please without being molested. There is still another class of "shanty boats," varying in size from fifteen to forty feet. These belong to the river hobos, the Mississippi tramps, as a class the toughest people in the world, getting their living by hunting, fishing and theft. They are a criminal class apart from the rest of their ilk, a class that the police find it almost impossible to touch, unless, at some time, they commit their depredations in the vicinity of some large town or city. Drifting about the river from place to place, they are here to-day and gone to-morrow.

There are a number of show boats going up and down the river, stopping at the smaller towns and large plantations, where they are sure of a crowd, even if it is black. One enterprising Westerner built a barge, housed it over, and fitted up a variety theater capable of seating, by crowding, about five hundred people. With a troupe comprising eight artists, and an orchestra of two pieces—a piano and a violin—he towed from place to place along the river, stopping as long as he could draw a crowd. During the winter of 1905 he is said to have stocked over fifteen thousand dollars, two thirds of which must have been clear profit.

A break in the levee at high water is a serious matter to those who live in the vicinity. Hundreds of acres of rich plantation land may become an inland sea in a few hours' time, and crops valued at thousands of dollars may likewise be destroyed. The Mississippi is no respecter of persons, and when the water comes everything is swept before it. Even the planter's home is not always secure, and sometimes himself and family are picked up by some relief boat perhaps miles from the original site of his home. The shanty-boat people are the only ones that are not troubled by a rise of the river, break in the levee or flood. Their home is on the water, and it matters little whether they are here or there. Then, too, the opportunities for adding to their worldly possessions are not to be neglected.

Sometimes an immense tract of land, several acres in extent, becomes undermined and detached from a plantation, and is carried by the current to some point down the river, where it lodges close to or joining the property of some

other planter or landowner. Occasionally a tract of land of this description may be of considerable value; the question then arises, who is the owner, the party who has lost his real estate, or the man who has found it? A case of this kind was recently in the courts, involving a tract of land eleven acres in extent, on a part of which was growing potatoes and other garden truck. It has been appealed to a higher court, whose decision is awaited with interest.

One does not have to go back to ante-bellum days to find the big plantation where the white man is king and the black man a patient servitor.

Passing through the delta of the lower Mississippi the soil becomes blacker and richer and the people blacker and thicker. Cotton fields and sugar lands appear, and the "big house" and the negro shack stand side by side. We do not need to be told that we are in the "black belt" of southern Mississippi.



WHARF SCENE—MEMPHIS



YOUNG FARM HELP HOEING COTTON



WEIGHING COTTON IN ONE OF THE MANY LARGE SHEDS



A LEVEE—A FAMILIAR SCENE ALONG THE MISSISSIPPI

Sugar is an important factor, but cotton is king. The chief topic of conversation from one year's end to another is cotton, cotton, cotton. If it brings above ten cents a pound, the planter and his family can indulge themselves to their heart's content; if it brings below six cents, bankruptcy stares them in the face, for it costs that to raise it. Cotton is money in every sense of the word. The negro tenant will mortgage his mule to secure the seed to plant. As soon as the green leaves appear above the ground a lien is put upon the crop in futurity for weekly food supplies and whatever else may be needed. When the crop has come to maturity the landowner takes possession of the cotton, sells it to the best advantage, pays himself with interest whatever may be his due, and turns over the remainder, if any be left, to his tenant. For this reason, if no other, there is no diversity of crops. The planter will take a lien on no other crop than cotton. Often the negro tenant will not raise fodder enough to feed his own stock, or garden stuff enough to supply his own family. The large plantation owner is generally the proprietor of a supply store, furnishing his tenants and laborers with everything they may need in the way of groceries, clothing, drygoods, etc. In this way the negro is enabled to supply his wants, although he pays at least twenty-five per cent more than the same things could be purchased in town for cash. The planter knows that if his tenant lives he is sure of his pay. If he should die, what may be charged up to profit and loss is seldom found on the latter page of the ledger, owing to the excessive profit he makes on his sales.

It is very seldom nowadays that an accident occurs on the river. The old days of racing are gone by, when a test of speed between the rival lines was an every-day occurrence. The old river men will tell now of the last race of any account, which occurred in 1872, between the boats "Robert E. Lee" and "Natchez," racing from New Orleans to St. Louis. No passengers were taken on either craft except at their own risk. The "Robert E. Lee" was stripped of all her doors and windows, that there might be as little obstruction from the air as possible, and burned cotton seed the last ninety miles of her route to generate more steam in her boilers. The "Lee" came out ahead, reaching St. Louis about five hours ahead of the "Natchez." As she came into her landing the shore was lined for a long distance with interested spectators. It was estimated that half a million dollars was bet upon this race. When the winning boat reached St. Louis the woodwork of her cabin fixtures was cracked and disjointed from the tremendous and long-continued jar of her engines.

One of the most singular accidents that ever happened on the river occurred to the steamer "Leathers" a few years ago. She was backing from her landing, and when about one hundred feet from the bank struck a snag, tearing a hole in her stern some three feet in diameter. The passengers were all safely landed, but in twelve minutes from the time she struck the snag she went down stern first. The most remarkable circumstance connected with this disaster was that no trace of her was ever found afterward. That a steamer the size of the "Leathers" could sink within one hundred feet of the shore in water so deep that soundings would reveal no traces of her is a most singular fact.

The greatest menace to navigation on the Mississippi is fog. When it gets so thick that it is dangerous for the boat to proceed, instead of anchoring, as is common in Eastern rivers, here the steamer runs her bow into the bank, and ties up to a tree or anything on shore to which a line may be made fast.

At the present time the boats that ply the river are much smaller than the steamers of forty years ago, but they are comfortable and safe boats. Few accidents happen nowadays, the racing fever has gone by, and in thick weather the boats tie up. The federal government keeps a careful watch on steamboats and steamboatmen. A constant effort is being made toward improving the navigable streams. Snag boats go over the river course at frequent intervals, eliminating many natural obstructions, which tends to reduce the frequency of accidents in river travel, and make it fully as safe as journeying by rail.

Let those who would spend a most delightful vacation, at a cost less than they would pay at a second-class hotel, take a trip on a Mississippi steamboat while she yet retains her individuality and lingers in this commercial age a connecting link between the old or ante-bellum days and the enterprising New South of to-day.

"AT LEAST you will admit one thing," said Judge Williams, in a tone that implied an unanswerable argument, "there are no thoroughbreds in Massachusetts."

"It always comes around to the horses," said his daughter, a girl of smiles and dimples, addressing the man at her right.

"We are not much given to horses in Massachusetts," admitted Tyler Armstrong, to whom the conversation was directed, as the defender of his state's reputation, "but we have had a few thoroughbreds among our men."

"Well, I tell you, sir, we people of Kentucky are satisfied to be proud of our horses and our women," said the Judge, with a low bow across the table to his daughter. "Am I sustained, gentlemen?"

The discussion had become public property, and the men at the table assented or echoed the sentiment with graceful words.

"And it always comes back to Kentucky," said Miss Williams to the man who had taken her in to dinner. "Why, father," she continued, "we have been living here in Arkansas for fifteen years. It is discourtesy to our guests."

"My dear, the heart of every Southerner rejoices at the sound of Kentucky's name," replied the Judge. "It is as sweet as the sound of—ahem! I nearly said of many waters, my dear."

There was hearty laughter, which provoked response from the other table, and the conversation assumed its usual trend as the next course was served—green goose and apple sauce.

Armstrong turned from the Judge to the girl at his left. She was an interesting type of the Southerner of good birth; rather tall, lithe, with long lashes guarding eyes that were large and true, and with soft, well-modulated voice.

"I have heard so much about you from Mr. Crane since he came South," she was saying, "that I cannot help feeling that we have been friends for a long time, though we met but yesterday. And this is your first trip South, you said?"

"I am sorry to say that it is," he replied. "I have traveled West, and lived abroad, but your Southland is new to me."

"It must be very interesting," she mused, with a little sigh. "I have lived here always, and so I cannot tell. Not being a girl, I don't suppose that you can write confidential letters to your best friend when you are away."

"Hardly," he replied. "But would you?"

"Certainly."

"And what would you write from Little Rock?"

"Why, I should tell about you as the prospective best man, and how I went out to dinner with you to-night because I was to be the maid of honor; and I should tell of the ten bridesmaids, and the ten ushers, and how Olive Williams was to be one of them—"

"One of the ushers?"

"No, one of the bridesmaids; and how she gave this dinner to the whole wedding party on the night before the wedding. And then I would work in some of Judge Williams' stories; they are so good!"

"And not a word about your friend, the bride, nor about my friend, the bridegroom?"

"How stupid of me! We must write another letter. But honestly, now, have you ever seen a more handsome girl than Elsa Graham?"

He, too, turned his eyes to the other table, where Miss Graham was sitting, her eyes flashing, her lips parted, as the guests about her were listening eagerly to her conversation, unconsciously bending their heads toward her. The picture held for a moment, and then her story ended in a rippling laugh, and the heads went back into position.

"Never in my life, Miss Elson," said Armstrong at length, answering the question addressed to him.

The residence of Judge Williams was one of the spacious mansions so common in the South. Built upon a plan that contemplated the entertainment of many guests, it had been found an easy matter upon the present occasion to seat the large wedding party by placing two tables in the dining hall.

Judge Williams sat at the head of one of these tables, and Amherst Crane, the prospective bridegroom, at the head of the other. There were masses of flowers upon each table, scores of shaded candles, and the menu was perfect, cooked and served by negro servants who had been members of the household since the war.

A Thoroughbred

By Lewis E. MacBrayne

"My friend is a fortunate man," said Armstrong a moment later. "Tell me, has she been—popular here in Little Rock?"

"You mean has she had many sweethearts?" she answered, seriously. "Yes, ever so many. She has been one of the belles of the state."

"And the sweethearts?"

"Why, everybody couldn't marry her, Mr. Armstrong! The right man had not come, that was all. My brother was one, but he married another girl last winter. Then there was a lieutenant down at the fort, and he was transferred to one of the territories. The others were not serious, unless, perhaps, Robert Carter, and he was too young."

"Tell me about Carter," he asked. "I can write that in the letter, too."

"Yes, indeed! There always should be a disappointed lover in a story. He is the only son of Major Carter. They were neighbors, and very good friends. Elsa was very kind to him; but then she was twenty-three and he was only eighteen."

"A mortal sin in a man!"

She blushed, and said, "I am more than eighteen, Mr. Armstrong."

"Mr. Carter isn't here to-night?"

"I reckon not. Ever since the announcement of the engagement he has

By the way, where is Mr. Crane and Miss Graham?"

"In the library, I imagine," she replied. "They are not responsible, poor things, we must allow. Did you hear what happened a few moments ago?"

"No. What do you mean?"

"Bob Carter called. You remember we were speaking of him. He asked for Mr. Crane, but he appeared so excited that the servant called Judge Williams, and when the Judge went to the door there were some words, and Bob was sent away. Molly, the maid, told me. Our niggers know family matters uncommonly well. So you like our plantation songs?"

"Yes, very much. And suppose that young Carter took it into his head to attend the wedding?"

"But he has no invitation."

"And if he made up his mind to go without an invitation?"

"Then there would be trouble, Mr. Armstrong," she said seriously, "for the Carters are hot-headed men."

It was midnight when Tyler Armstrong left the maid of honor at the door of her own home, and a quarter of an hour later he had entered his room at the hotel. The November night had been warm, and the windows of the



"'Good-evening,' said Armstrong. 'You appear to have been expecting a burglar.'"

behaved so badly that Elsa has been obliged to refuse his calls. He must be right sorry to lose an invitation to the wedding, too."

"How long has this been going on?"

"Oh, since she met Mr. Crane, a year ago. Elsa went abroad last spring, and her engagement was announced at that time, though Mr. Crane couldn't go with her because of his new cotton company here. And he wouldn't look at one of us girls until she returned in the fall."

After that the conversation at their end of the table became general again. The Judge told another story which related to a young husband, and was passed along to the other table; and there was no opportunity for confidential chat until later in the evening, when the company was in the music room.

A girl who until the previous year had lived upon a plantation in Louisiana had just sung a couple of negro songs, when Armstrong crossed the room from the piano, where he had been turning the leaves of the music, to the divan upon which the maid of honor was demurely seated.

"There is a great charm to your negro songs as sung here, Miss Elson," he said. "I almost wish that you could hear them as we sing them in the North.

room were open. He closed one of them mechanically and stood looking from the other, twirling in his hand a rosebud, and thinking not of the beautiful Southern girl who had given it to him as he left her, but of Carter, who was so young that he could neither marry another girl nor get transferred to one of the territories, nor—

Crane entered the room at that moment. His white tie was awry, and his silk hat was set airily upon the back of his head, but he carried the large bunch of violets that his fiancée had worn at the dinner, and he sang the words of a song that had been sung during the evening—

"For to-morrow he marries the princess, In his palace beside the sea."

"Beyond the sea," said Armstrong, still looking from the window.

"Was it?" asked Crane, happily, kissing the violets. "Never mind where he was,

'For to-morrow he marries the princess.'"

"And what becomes of young Carter?" asked Armstrong, abruptly.

"Young Carter? Oh, yes; the youngster who has been bothering her. I've

half a mind to spank him, old man, for his presumption. Do you know how long violets will keep on ice?"

Armstrong laughed and closed the window, and they talked of other matters as they made themselves comfortable for the night. It was the end of the bachelorhood of one of them, and in the old days back in the city up North they had been as brothers. They spoke lightly now of the separation that had followed college life, as though it was a thing of the past. Yet each one knew that for the first time they had come to the parting of the ways.

The invitations to fashionable evening weddings up North read for a half-after-six o'clock. In the South the correct hour is nine, and punctuality is not a thing insisted upon.

When Crane and Armstrong drove to Christ's Church on the night of the wedding it was five minutes before the hour, and the roadway was choked with the carriages of the guests, who were still arriving at the covered passageway that led to the main entrance of the building; and as their own carriage turned the corner to the vestry side of the church they caught a glimpse of a great throng of black faces turned eagerly to the point where the guests were alighting.

"Feeling cool?" asked Armstrong.

"Perfectly," replied Crane.

"Have both cuffs and your gloves?"

"Sure."

"Haven't forgotten the ring?" A moment's pause. "I say you haven't forgotten the ring?"

"Yes. Don't laugh. Oh, come, shut up your laughing! I know where I left it."

"Then we had better tell the man to drive back," said Armstrong, as the carriage came to a stop.

"But we told the organist that we would be on time, and that he could take his cue from the bridal party."

"Then you drive back," said Armstrong, "and I will hold the ceremony until you return. It isn't quite the thing, but it is the only safe plan under the circumstances."

Armstrong left the carriage and passed up the short flight of stone steps leading to the vestry room that had been assigned to the use of the bridegroom. This room opened directly into the chancel, and from it the two men would pass down to the place where they would meet the bridal procession.

The best man knew the way, and he opened the door without hesitation, passing into the lighted room beyond. The entrance took only a moment's time, but he stopped suddenly as he closed the door behind him, for directly across the room stood a young man who had him covered with an ugly-looking revolver.

"Good-evening," said Armstrong. "You appear to have been expecting a burglar."

The face of the young man did not betray his feelings. He was tall, with light hair and blue eyes, and he was in faultless evening dress. It was an easy matter to note these facts.

"Your name is Carter, I presume?"

"Yes, sir."

"Thanks, awfully. Mine is Armstrong; best man to-night. I came in advance of the bridegroom." He was measuring the distance across the room and calculating the chances of a rush to gain possession of the revolver. For his own safety he did not care, but the weapon would be turned against Crane, he doubted not, if the latter returned before Carter was disarmed. As yet he did not know the temper of his man, but the latter appeared to be desperate in what he was undertaking. The coldness of his eyes suggested that. It was necessary to try another line of attack.

"Mr. Carter," he said, in a different tone, "I am sincerely sorry for you. I have been in town only three days, but your story has been told to me in confidence. It is a bit tough on a man."

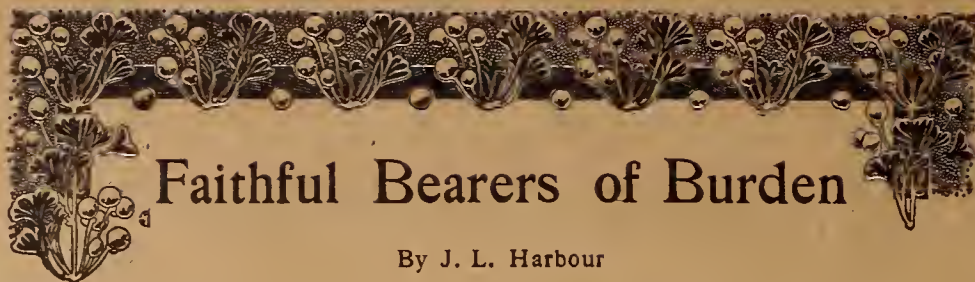
Carter had softened a little. "Thank you," he said; but the revolver that he had lowered for a moment was raised again as Armstrong put one hand into a pocket behind his back.

"Only my kid gloves," said the best man, and he held them up and began to smooth one over his left hand. "As I was saying, Mr. Carter, it catches one in the throat to think of Miss Graham in there being married to another man. But why shouldn't we remain gentlemen just the same?"

Again Carter gave signs of a rising emotion. Whatever his fault, he was terribly sincere in it.

[CONCLUDED ON PAGE 21]

THAT very diminutive and undeniably homely little creature, the Rocky Mountain burro, is one of the most useful of animals. All that he lacks in beauty he makes up for in general utility. He is indispensable in some of the mining districts beyond the reach of railroads, for no other four-footed animal, with the exception of a goat, can go where he can go and subsist on the scanty food on which he seems to thrive. He is the most patient little beast of burden imaginable, and seems to have phenomenal strength and powers of endurance. He will go up the steepest and narrowest and rockiest of mountain trails with enormous burdens on his back. Having toted lumber, provisions, whole barrels of flour and great bags of potatoes away up above timberline, over the steep mountain trails and



Faithful Bearers of Burden

By J. L. Harbour

do wonderful execution with their heels and their strong white teeth. They will squeal in a blood-curdling sort of way when angry, and they show no quarter.

One will find a great many burros in the West Indies, that climate agreeing better with them than with horses. The horses in tropical climates are almost

with the equally slow movements of his dusky owner. The negro of the West Indies is never in a hurry, no matter how urgent the matter in hand may be. His deliberation is a matter of a good deal of vexation to his white employer, but in this he is like the burro, he is not to be moved from his natural gait.

donkey. The little burro was almost staggering along in the heat of the burning sun under his great burden.

The sight aroused the sympathy of the visitor to the island, and he said a little sharply to the owner of the animal:

"See here, that little creature is carrying too heavy a load. You ought to lighten that load some. It's enough to kill the poor little donkey to stagger along under all that burden."

The negro of the West Indies is nothing if not complaisant, and he promptly agreed with the stranger that the load was too heavy.

"I'll mek de load lighter, sah," he said as he slid from it.

Among other things on the donkey's back was a cask containing twenty gallons of a kind of sweet drink the natives of Jamaica take to market.



THE OLD WAY AND THE NEW



MAMMY AND I

passes, he will come down heavily laden with ore from the mines in stout canvas bags. It would be almost impossible to get it down in equally large quantities were it not for this sure-footed and strong little beast. One may see in the Rocky Mountain mining districts long trains of these little creatures laden with freight of every description and plodding along in single file at a rate of speed that no amount of persuasion by voice or whip can change for long. The burro has his own gait, and is not to be moved out of it, and this gait is exceedingly slow and deliberate.

Now and then one will meet with a miner or prospector moving on to some more promising field, with his tent, sheet-iron stove, picks, shovels, wheelbarrow and all his other earthly belongings on the back of a single burro. The burro sometimes "comes in handy" when a railroad is to be built, and it is astonishing how many heavy railroad ties one of these little creatures can carry on his shaggy back up a steep mountain slope. Burros helped to build the railroad up Pike's Peak, and no other four-footed animal could have done the work they did. Like the camel, a little nourishment goes a long way with them. Indeed, they seem to find nourishment in the sage brush of the West or the green twigs they nibble



OUT FOR A SPIN

Looking over the load, the owner of the little burro at last took this heavy cask from the back of the donkey, transferred it to the top of his woolly pate and calmly reseated himself on the load, saying, as he did so:

"Now, massa, I carry de cask my own sef an' dat will mek de load lighter."

The writer has seen burros in the Rocky Mountains with nearly a cord of wood on their shaggy backs, and they can carry as many children as can "pile on" their backs.

The burro, like many another beast of burden, often receives nothing but kicks and blows in return for the great service he renders his owner. The sentiment against the ill treatment of domestic animals is growing, as it should, and an animal as patient and faithful and peaceable as the little burro is deserving of the kindest treatment.

Only the burro would seek to make a meal of the thistle, but the burro is capable of a gastronomic feat of this kind, and one who has seen the burro dining on the thistle says: "Few experiences of frontier life are more amusing than to watch the burro's attack upon a large bull thistle. He walks about it seeking for a favorable opening, projects his lip gingerly against its spines and jerks back as he feels its prick. He surveys it pensively for a



THEY CALL ME SATAN



PACK TRAIN ON OLD PIKE'S PEAK TRAIL

from the trees, while they can exist very comfortably on nothing but the tufts of brown grass they find in the lower altitudes.

Non-resistant as they are to almost any degree of abuse on the part of their owners, they will now and then fight fiercely among themselves. When engaged in a scrap of this kind they can

always very scrawny creatures, no matter how well fed they may be, and they do not live as long as in the colder climates, but the burro seems to thrive in the tropical districts quite as well as in the mountains. The natives of the West Indies make use of the burro in going long distances to market, and his slow and plodding gait is in harmony

A visitor to the beautiful island of Jamaica says that he was out riding one day when he met a jet-black native of the soil on his way to market with a burro. The little creature had an incredibly enormous load of "truck" of all kinds on his back, and this load included his master, a big fellow who was perched on top of the load on the back of the

moment or two, and then slowly raises his foot and strikes it, pausing to watch the effect of the blow. He then perhaps strikes it from the other side and watches it again. The blows become more and more rapid, and at length it is entirely broken down and thoroughly trampled, after which it is consumed to the last vestige."

Daniel Webster

There is no true orator who is not a hero.—Emerson.

DANIEL WEBSTER tied with Abraham Lincoln in receiving the number of votes next highest to Washington for a place in America's Hall of Fame. He is one of three men—Clay, Webster and Calhoun—whose names are heard as often as if they had been presidents. He was four times a candidate for the nomination for the presidency, and held the place of secretary of state under Harrison, Tyler and Fillmore. He resigned the office under Tyler and resumed the practise of law. He was eight years a representative, nineteen years a senator, and five years secretary of state, making in all thirty-two years of public life.

He was born in Salisbury, New Hampshire, January 17, 1782, in a one-story frame house. In after years he used to say this house was nearer the North Star than any other in New England. As a boy he was pale, weak and sickly, and had not the confidence to speak in school. But by doing a boy's work on his father's farm, by engaging in outdoor sports, by leading a temperate and frugal life, he succeeded in building a large frame and a robust constitution. On reaching manhood he looked like a Hercules, with a great mountain of a head, and his big head was chock full of the finest and best quality of brains. His compeer, Henry Clay, wore the same size of hat, though his head was of a different shape, and did not look near so large. When Thorwaldsen, the sculptor, saw a model of his head in Powers' studio, in Rome, he thought it a design for the head of Jupiter, and would not believe that it was of a living American.

So impressive was he in personal appearance that Sydney Smith said he was "a living lie, because no man on earth could be as great as he looked." And yet when he first began to practise law he was so rustic that the city lawyers were cool and held aloof from him.

His father recognized in his son the talent which afterward gave him a world-wide reputation as a lawyer and a statesman, so he made the necessary sacrifice to send him to Dartmouth College. Tradition says he took no part in the graduation exercises, but received a diploma, which he tore up in the presence of his classmates, saying: "My industry may make me a great man, but this miserable parchment cannot." Some years after that he made an eloquent plea for his little college, his Alma Mater, in the Supreme Court, that brought tears to the judges' eyes. Professor Shurtleff, his classmate, said he was remarkable for three things when at Dartmouth: "steady habits, close application to study, and last, but not least, ability to mind his own business."

He first learned to read from the Bible. He had a wonderfully retentive memory, and when fourteen years of age could recite by heart the whole of Pope's "Essay on Man." At this time his library consisted of the Bible, a cheap pamphlet copy of Pope's "Essay on Man," a copy of Watt's hymns, and an occasional almanac. To-day his book of forty speeches is read by all political debaters. And the schoolboy who was too timid to speak a piece became an orator of national fame. His address at the laying of the corner-stone of Bunker Hill Monument, and again at the dedication when finished, and his reply to Hayne in the Senate are masterpieces which have never been excelled.

In 1807 he married Miss Grace Fletcher. One day he assisted her in disentangling a skein of silk, and, taking up a piece of tape, he said: "Grace, cannot you help me to tie a knot that will never untie?" She blushing replied: "I don't know, Daniel, but I am willing to try."

Twenty years after, this love knot was untied by the death of Mrs. Webster, which occurred in New York, while she was on her way to Washington to share her husband's honors. Two years after her death, he married Catherine Bayard Le Roy, of New York.

One day he was present at a dinner party given by some of his New York friends, when one of them asked him

what was the most important thought that ever occupied his mind. He answered: "My individual responsibility to God."

He died at Marshfield, October 24, 1852. The iron casket, open full length, was placed under a linden tree in front of the mansion, where his body could be viewed. He was then laid to rest in the family tomb, which he had prepared. Thirty years after his death, the centennial of his birth was celebrated. Twenty thousand people assembled at Marshfield to pay tribute to his memory. The President of the United States was there with his Cabinet. Senators, distinguished ministers of the gospel, presidents of colleges and literary men—all came to do honor to his memory. Mr. Allen said the veterans of the Army of the Republic lined up on either side of the road to the mansion for a mile and a half. Cannon resounded from the hilltop, and a solemn funeral dirge was played by the bands. It was a scene such as Massachusetts had never before witnessed.

Asa Gray

"ASA GRAY? Who was Asa Gray? I never heard of him until he appeared among the illustrious company of Americans chosen for the Hall of Fame. The idea of putting in Webster and Clay, then leaving out the immortal patriot, Patrick Henry, and the celebrated statesman, John C. Calhoun, to enroll the name of Asa Gray!"

Thus spoke a member of the United States Senate, who, with a number of other persons, was criticizing the list of names catalogued for the Hall of Fame. Doubtless this senator had become so absorbed in the laws of the land that he had overlooked the plants that luxuriated in its soil. He had stepped over the modest violet and passed by the sweet-scented rose to turn his attention to the political issues in life. He had never thought the man of much use to his country who gave his time and talent toward solving the mysteries of plant life; nor did he think he was to be compared with the great statesmen and renowned soldiers who liberated and elevated this nation.

It seems that statesmen, soldiers, and orators were most popular as candidates for the Hall of Fame, and, judging by the vote cast for those enrolled, they were considered by the judges to be most eligible. Washington, Lincoln, Webster, Franklin, Marshall and Grant all received a large vote, while Asa Gray, the famous botanist, received only fifty-one. Had he received one less, he could not have entered the Hall of Fame.

Asa Gray, the American botanist, was born at Paris, Oneida County, New York, November 18, 1810. He graduated from the Fairfield Medical College in 1831. When he was quite young, he became interested in plant life, and acquired a taste for natural science which finally led him to abandon the practise of medicine for the study of botany. He applied to Dr. Torrey, the best-known botanist at that time, for instruction. Like himself, Dr. Torrey had been educated for a physician, but gave up medicine to devote himself to the science of plants and flowers. The student and teacher soon became fast friends and fellow-workers. From that time they labored together for some years in discovering and classifying the flora of this country. The flora of the United States was by no means well known and classified at that period. There was then a countless number of wild flowers and wood plants, even in the most thickly settled parts of the land, that were unnamed and whose very existence was unknown. The people did not know, and had no books from which to learn, and it was this want that he and Dr. Torrey set themselves to supply.

In 1838 they published "The Flora of North America," which was the

most important book on botany that had ever been published in America and placed its authors at once among the leading scientists of the country. Several years before this book was given to the public, Gray had attracted some notice, and he was appointed botanist to the Wilkes Exploring Expedition, which was so dilatory in starting that he became impatient and resigned the position.

After resigning from the United States Exploring Expedition, he went abroad, traveling over Europe, where he became the associate of some of the most eminent scientific men of the time. He won high reputation as a naturalist, developing original views which attracted much attention while he eagerly prosecuted his researches in all departments of the science of the vegetable kingdom. During his visit in England he met Dean Church, of St. Paul's, London, then Fellow of Oriel College, Oxford, with whom he kept up a correspondence of the most intimate friendship until his death.

On his return from Europe he was appointed Professor of Botany in the University of Michigan; but before he had entered upon the duties of that office he was elected, in 1842, Fisher Professor of Natural History at Harvard. For thirty years he filled this chair with distinction; and in addition to his lectures to the students at Harvard, he delivered three courses of lectures before the Lowell Institute, in Boston. After he retired from the lecture room at Cambridge, he devoted his time to new work in science, instead of teaching, and to the care of the fine herbarium of the university. It is scarcely possible to judge of the great value his labors have been to us and to the cause of science throughout the world. His books are manuals for reference and schoolbooks for classes of almost every grade.

One of his biographers writes that the life of Gray is to be read in his published works, that he gradually developed the reputation of a botanist of the first rank, one of the greatest of his century, and certainly the greatest his country had ever produced. His lot was cast at a period in the history of science when the artificial system of botany was to pass away and the new and natural method was to undergo development. There were vast masses of material constantly pouring in from the newly explored Middle Western Territories, together with the rich spoils that government expeditions were bringing by sea from the Pacific Coast. Prof. Gray set about to arrange these multitudinous specimens in accordance with the newest methods, to identify, name and class them.

He was the first in America, with the assistance of Dr. John Torrey, to arrange the heterogeneous assemblage of species upon the natural basis of affinity. He found it a colossal undertaking to write a work on the flora of North America, as new material was frequently coming in from all parts of the country, and every specimen had to be thoroughly examined and classified. His fame as a scientist spread over Europe, and from that country came also specimens for him to analyze, name and classify.

His pen was kept busy, and he published volume after volume in which he showed that he was as clear and concise as an exponent of botany in its elementary principles as he was skilful and bold in wide generalizations and profound analysis. He contributed many papers to scientific periodicals and publications of learned societies. He was a teleologist, and believed that species were differentiated according to a preordained plan in the mind of a Creator.

His principal writings are as follows: "Elements of Botany," which was published when he was twenty-five years old, and is a popular text book to-day in many of our schools. In 1848 appeared "Manual of Botany for the Northern United States." In 1849 "Genera Borealia Americana Illustrata." In 1854-58 "Botany of the United States," "Pacific Exploring Expedition under Capt. Wilkes," a revised edition of "Botanical Text-Book" containing thirteen hundred illustrations;

"Botany for Young People," in 1869; "Darwiniana, Essays and Reviews Pertaining to Darwinism," in 1876. Then a complete edition of the "Flora of North America" in 1884, which was the grandest work of its kind ever published. "Natural Science and Religion" in 1880, "Scientific Papers of Asa Gray" in 1889, and "Letters of Asa Gray" in 1894.

His fame continued to spread more and more, and so profound was his learning that Harvard conferred the degree of LL. D. upon him. In 1874 he was chosen one of the regents of the Smithsonian Institution. His contributions to foreign scientific journals had made him almost as well known in France as he was at home, and in 1878 the Academie des Sciences of Paris elected him a corresponding member in the section of botany. He died, in Cambridge, Massachusetts, January 30, 1888, seventy-eight years old.

Admiral David Glascoe Farragut

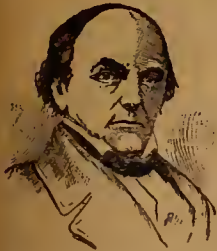
LIFE at sea is not one of ease and comfort to-day. Much less was it at the beginning of the nineteenth century. It is seldom that a boy begins life's work before the age of fourteen. The subject of this sketch began his career at the age of nine. His life was given to the sea.

David Glascoe Farragut was born at Campbell's Station, near Knoxville, Tennessee, July 5, 1801. His father, George Farragut, had come to this country from the Island of Minorca, in the Mediterranean Sea.

To Commodore (then Commander), David Porter, credit must be given for starting Farragut on his successful career. In gratitude for the care shown his father by the Farragut family, Porter proposed to adopt one of the Farragut family. David, who was then eight years old, was chosen, and when nine years old he received his midshipman's warrant. The document was dated December 17, 1810. In August, the following year, when Porter took command of the United States Frigate Essex, the midshipman Farragut began his duties in the naval service.

Captain Farragut was put in a very delicate position on the breaking out of the Civil War. By nativity and by marriage of two wives in succession, he was identified with the slave-labor states. When his country was assailed by its recreant children in the Southern States, and scores of southern-born naval officers deserted the Union flag, Farragut did not hesitate a moment in choosing to defend the Union.

He took his family to a village on the Hudson River, and then went forth to give mighty blows against the dragon of rebellion. All through the four years' war that ensued he was the model commander wherever his flag was seen, whether on the Mississippi River or the Gulf of Mexico, in his good wooden ship Hartford. He led in the expedition for the capture of New Orleans, and in efforts to make the Mississippi River free for the navigation of national vessels. He attempted to reduce Vicksburg, and took a conspicuous part in the attack on Port Hudson, the following year. For his services at New Orleans, and on the Mississippi River above and below, he was thanked by Congress, and placed first on the list of rear-admirals soon afterward created. He did gallant service on the coast of Texas as commander of the Gulf Squadron. His most brilliant achievement during the war was in Mobile Bay, near the close of the summer of 1864. Lashed to a position among the shrouds of the Hartford, where he could oversee and command his whole squadron, he boldly sailed into the bay, fighting a fort, gunboats, and a powerful ram, and every moment in danger of destruction by torpedoes. One of these destroyed an ironclad gunboat just in front of the Hartford. She filled and sank in a few seconds, carrying down her commander and nearly all of her men. At that moment he felt that all was lost, but his first impulse was to appeal to heaven for guidance, and he prayed: "Oh, God, who created man and gave him reason, direct me what to do. Shall I go on?" And it seemed as if a voice in answer commanded him to "Go on!" and he cried out: "Four bells! Captain Drayton, go ahead! Jouett, full speed!" and victory was the result.



For the Young People

Some Parlor Games

BY FRANK H. SWEET

EVERY youth delights in stories which deal with the detective's art. Some of the best writers for boys have given contributions for wholesome reading in this line, and it is quite natural for boys to wish to take a hand in what appears to be a fascinating occupation.

The game of "Detective" gives an opportunity to do so, for it enables players to follow clues, hunt criminals, perform arrests and bring the guilty parties to trial.

The game of "Judge and Jury" may be employed in connection with it, and thus the criminals detected in the one game are brought to trial and sentenced in the other.

The game of "Detective" may engage a whole roomful or only half a dozen persons. It is well suited to a party of boys and girls in their teens, and it may be enjoyed by much older people.

When very young people play it, it is best that they try simply to discover a crime which has been committed in the room where the game is being played. Those who are a little older may extend the field of their operations to the town, state or county in which they live, or to any place regarding which they are all well acquainted. Adults can locate the crime anywhere, and so that they do not pass beyond the limits of the detective they may choose any place as the scene and any age as the time of the crime.

The method of playing the game in a simple form is as follows:

One person, chosen as the detective, leaves the room. Another, who is designated as reporter, announces to the company that a serious crime, which has baffled the skill of the police of the town or city of Blanks, has been committed. He may then state that a very valuable diamond has been stolen from the earring of Mrs. Martha Washington, or of any other person whose portrait may chance to hang in the room, and one of paste substituted in its place. Or, he declares that dynamite is concealed in one of the embroidered flowers of the sofa cushion. Or, a certain white key of the piano has been abstracted and a black key put in its place.

Any other object may be selected, if preferred, but the company must all be informed what object is decided upon.

Suppose, now, the reporter announces as the first case the diamond robbery, and tells the company that a detective has been employed to find the criminal, who is known to be present in the room. This detective takes upon himself not only to discover who has committed the crime, but the crime itself. All are required to answer truthfully "yes" or "no" to the questions which the detective shall ask, and he is to be allowed to ask only one question at a time of each person.

The person who happens to answer the last question by which the detective discovers the crime is the guilty party. He or she will be arrested, and upon the principle that "It takes a rogue to catch a rogue," must serve as the next detective.

Later the criminals will be tried by judge and jury for each special crime, and be required to pay such forfeits as the court shall require.

The reporter now retires, and brings in the detective, who may be disguised, after the traditional fashion, with wig, blue goggles, etc., or by assuming the character of an Irish laborer, a Dutch noble or a Chinese mandarin, or any notable or curious personage. His questions, in whatever form they may be arranged, should aim to follow somewhat in this line:

Is it a theft? Yes.

Does the article stolen belong to the animal kingdom? No.

To the vegetable kingdom? No. (The detective here gets his first clue. It must be mineral.)

Is it something to wear? Yes.

Does any living gentleman in the room wear it? No.

Any living lady? No. (Then it must be a picture.)

Dividing the room at this line (indicating) into two parts, is the article in this half? Yes.

Subdividing again and again, he at last finds the diamond.

It must be understood that objects represented by pictures are to be classified the same as real objects.

The person who answers the last question is declared to be the thief, and should be handcuffed by the detective and led from the room to serve as the next detective.

The detective of a party of bright students gathered not long ago in the city of San Francisco was successful in discovering the criminal who surreptitiously and maliciously threw a sharp-pointed pebble, thereby mutilating the letter "E" in the word Anesthesia carved upon a monument erected in the public garden of Boston. Another member of the party discovered Cassius' accomplice in the crime to which Mark Antony refers in his speech over the dead body of Julius Caesar:

Look, in this robe ran Cassius's dagger through,
See what a rent the envious Casca made;
Through this the well-beloved Brutus stabbed.

This game admits of great variety and adapts itself to players of all ages.

The "Judge and Jury," if the party be large, may now hold session, and go through the regular form of trying the cases and sentencing the criminals. The success of the court must depend largely upon the ready wit of those engaged in it.

A deal of merriment may also result from "Mum Parties," to which the young ladies invite the gentlemen, with the request that only ladies shall do the talking, the invited guests not being allowed to say even "yes" and "no." The inviting party should by every device try to surprise their guests into speaking. Those gentlemen who are surprised into speaking become criminals, and must be tried for their offense before the judge and jury.

The testimony of the witnesses often

becomes very contradictory, making the decision of the jury exceedingly difficult. The sentence is given by the judge, who requires that all forfeits or fines be paid immediately in the presence of the company.

A very good plan for those who wish to raise money for replenishing reading rooms or libraries, or to accomplish any other object in which young people are interested, is to place a fine upon those who speak, which must be paid according to the number of words or sentences spoken.

The judge and members of the court should be dressed in costumes suited to their office.

Pantomime rightfully belongs to the "Mums," and may well form a part of the entertainment at such a gathering. The accessories for the performance of pantomime are easily available. Parlors with folding doors, across which a sheet or white curtain is smoothly hung, will do nicely. A lamp with a bright reflector—the only light in the room—set at the proper distance to give the shadow upon the curtain in the desired size; the company gathered in the unlighted room, on the opposite side of the curtain; the players stationed between the lamp and the curtain, are all the preparations necessary for the successful rendering of pantomime.

Books of pantomime giving full directions for elaborate entertainments may be ordered from any bookseller. In the home many very pleasant and amusing hours may be spent arranging shadow profiles as well as those delightful delusions when the greedy player swallows dolls and kittens, and balls of twine and tape, and every sort of odd thing, only to bring them all back, or unwind the strings yard after yard from his open mouth, making the little people wonder more and more how such queer things can be done.

Many beautiful profiles in antique styles of hair dressing and Elizabethan ruffs (made of plaited paper) may be

given by the young girls in the family. The young men with equal skill may represent in profile the kings of ancient time or the more modern characters of our Revolutionary time.

Again, funny tableaux may be given. One person may read a poem or lively sketch, and the player or several players at the same time give the gestures in a rapid way before the curtain. This is very laughable and entertaining to persons of all ages.

An apple suspended from the ceiling or gas fixture, just above the heads of several players, who jump for bites from the apple, gives on the shadow curtain a most ludicrous picture.

There are a thousand devices which will suggest themselves to bright and fun-loving young people, for in no department of picture making and merriment may they find a more prolific field for their effort.

A Great Opportunity for the Young Boys and Girls

Boys and girls! don't you want a pony? Did you ever dream of having two fine little ponies like "Surprise" and "Beauty," with a fine little pony wagon, all for your very own? We don't believe you ever did—ever dared to dream of such a grand thing—because not one boy or girl in a thousand has such a fine present given to them.

You can have these ponies for yourself—absolutely free—and FARM AND FIRESIDE is just waiting to give them to you. Last year a little girl named Viva McNutt, only thirteen years old, won "Teddy," last year's first prize. You can be twice as happy as she is, because you can have two ponies and a wagon big enough to take out all your friends who will look upon you as the proudest and most important person in the world. And if you don't get "Surprise" and "Beauty," the first prize, you may get "Fuzzy," the cute little pony, which has a wagon just like "Teddy's," or "Wuzzy," the third-prize pony, which will carry you everywhere on his back on the fine saddle we will give you.

All you have to do is to get your father and mother and your neighbors to give you twenty-five cents for FARM AND FIRESIDE. If you get two of them to give you a quarter, or easier still, if you get five of them to give you fifty cents for a three years' subscription, you will have won a prize. That's easy, isn't it? Read all about "Surprise" and "Beauty" and "Fuzzy" and "Wuzzy" on page 32. Then start right out with a copy of the paper and win a valuable prize.

Whose Place Will You Take

ARE you looking out for a place? You may make a place for yourself. By some invention or enterprise, or wise management, you may originate some work which no one ever did before, and so have a place which is all your own. But in most cases boys as they grow up take the places which other men occupied, and do work which other men have done. It is quite important, therefore, for boys to consider what places they will take when they grow up.

"I read," says one writer, "of a boy who had a remarkable dream. He thought that the richest man in town came to him and said, 'I am tired of my house and grounds; come and take care of them, and I will give them to you.' Then came an honored judge, and said, 'I want you to take my place; I am weary of being in court day after day; I will give you my seat on the bench if you will do my work.' Then the doctor proposed that he take his extensive practice and let him rest. 'I'm wanted to fill a drunkard's grave; I have come to see if you will take my place in these saloons and on these streets.'"

Every boy should be preparing himself for the place he is to fill. The boy who is studious, honest, noble and true is fitting for a good place. The boy who runs the streets nights, who lies and swears, smokes cigarettes, drinks beer and keeps bad company—what kind of a place will he fill?—The Little Christian.

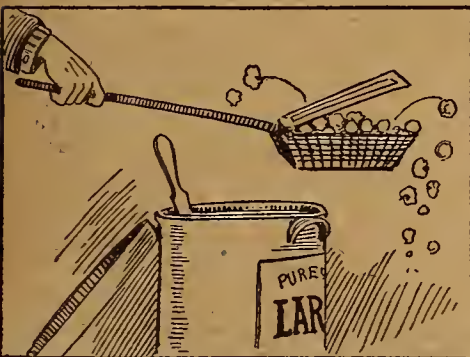
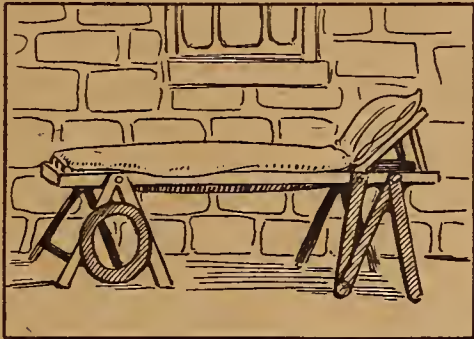
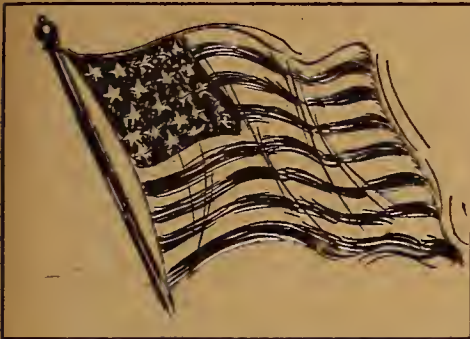
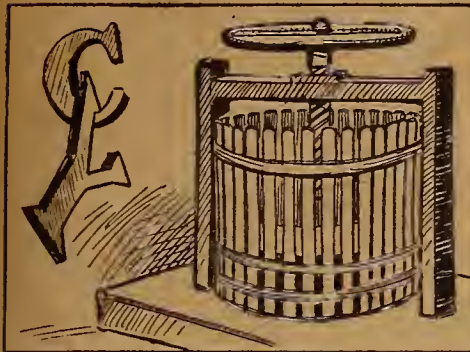


I GOT YOUR NOSE

Photo by Will Heilig

The Puzzler

The Six Pictures Here Shown Represent the Names of Trees and Plants Mentioned in the Bible



Answers to Puzzles in the February 15th Issue: The Cylinder Shown is an Optical Illusion, and May be Said to be Either Standing on End or Lying on Its Side. Charade No. 1—Connecticut—con-nect-i-cut. Charade No. 2—Puritan—pur-i-tan. Charade No. 3—Partridges—part-ridges

A Thoroughbred

[CONTINUED FROM PAGE 17]

"You do not understand," he said. By heavens, sir, if you were in my place you wouldn't draw out without a fight! If a woman had told you that she loved you, sir, would you allow her to marry another man?"

"Yes!" The answer was hoarse.

"You're a liar, sir!"

The door leading into the chancel was closed, yet through it there came the breath of the organ in melodies soft and sweet as the guests were seated in the brilliantly lighted church. A few moments more and the chief usher would signal to the organist, who would play the wedding march, and the bridal party would enter the main aisle.

Armstrong still stood with his back to the door by which he had entered. He spoke now with great rapidity.

"Listen, Carter," said he; "as I believe in God, I am speaking to you on the honor of a gentleman. Six months ago I met this girl with her mother in Venice. They came to my hotel, and when they left it I went with them. Love thrives under Italian skies. Had you told me then that she did not return mine I would have laughed at you. There came a day when they were to secure passage home. I asked her to marry me, and she told me that she was already engaged to marry. It happened to be the chum of my youth. I congratulated her. I even kissed her hand. But I went away."

Carter had looked at him with wondering eyes. "And you came on to the wedding?" he said.

"Just for one more hungry look at her—one last hungry look. We met here as strangers, you understand. I asked that favor for Amherst's sake. He is the only one of us that she hasn't made unhappy—you and me and the lieutenant down at the fort and the others; and he must never know."

The tears were blinding poor Carter's eyes. "I will go away," he said. "There is a carriage outside now."

"It is the bridegroom! Here, behind this screen, quickly! Remain there until he has passed by."

Carter stepped behind the tall Japanese screen that stood before the fireplace.

When the door at the head of the stone stairway was opened and Crane

entered, Armstrong was standing in the middle of the room buttoning the glove on his right hand.

"Did you find the ring?" he asked, in his natural tone.

"Yes; confound it!" replied Crane. "I had it all the time, only in the wrong pocket. Am I late?"

"Just in time."

The organist was sounding the warning notes of the bridal chorus from Lohengrin. The important moment had arrived. Armstrong opened the door leading to the chancel, and there came to them the heavy odor of a thousand roses that covered the altar rail and blossomed down to the great palms grouped on either side at the front.

Then the organist began to play the march, and they could see the long bridal procession just entering the aisle. When the bride should appear, radiant in her bridal robes, it would be time for them to enter the chancel.

"Feeling cool?" asked the best man.

"Perfectly," replied the bridegroom.

And they passed down the chancel to meet the bride.

[THE END]

We used to get letters from people objecting to so much space being given up to advertisements. We don't get such letters any more, and we think it is because our people have come to realize that not only are our advertising columns free from the dishonest announcements of fraudulent concerns, but that the advertisers are really their friends. If you have ever written to our advertisers, and mentioned FARM AND FIRESIDE, you know that you received most courteous treatment. Often advertisers confer inestimable benefits on our readers by telling them about some bargain or opportunity about which they would otherwise have known nothing. We ourselves, the publishers of FARM AND FIRESIDE, are able to bring many things to your attention through the advertising columns for which we have no room in our regular reading matter. The great Prize Contest, for instance, will bring more pleasure to FARM AND FIRESIDE families than any one thing that has been offered in a long time, and if it hadn't been for our advertising pages we should never have had room to tell you all about "Surprise" and "Beauty," and "Fuzzy" and "Wuzzy," and the automobile and the piano, and the other valuable prizes that are to be given free to the members of the FARM AND FIRESIDE family.

Amatite ROOFING NEEDS NO PAINT

DO YOU USE A ROOFING THAT REQUIRES PAINTING AND COATING?

If so, do you realize that the coating and painting will probably cost as much, if not more, than the first cost of the roof itself?

When you buy a roofing that has to be coated, you must consider the cost of maintenance as well as the first cost. If you do this, you will find that coated roofings cost you just about twice the original cost.



If you try to save money by not coating such roofs they will soon leak and rot away.

The best way out of the difficulty is to buy a roofing that requires no coating, such as Amatite. This Ready Roofing has a special mineral surface which makes painting entirely unnecessary. The first cost of Amatite is the whole cost.

After it is once laid on the roof it costs you nothing to keep up.

Furthermore, the price of Amatite in the first place is less than that of almost any other ready roofing. It is by far the lowest priced of the good ready roofings.

When you get prices don't forget to count in the cost of putting on paint every year, and you will be sure to come back to Amatite as the cheapest and best.

FREE SAMPLE

Let us send you at once a SAMPLE of AMATITE and a Booklet of information about it. We want you to see how much better it is than the kind that has to be painted.

Address nearest office of the

BARRETT MANUFACTURING CO.,

New York. Chicago. Cincinnati. Cleveland. Philadelphia. Minneapolis. Kansas City. St. Louis. Boston. New Orleans. Allegheny.

Great Four-Pony Contest

FARM AND FIRESIDE HONOR ROLL

Josie Anderson, Ohio.	Edward A. Flack, Ill.
J. G. Bare, Va.	Eugene Gunn, Ky.
Merton B. Barrow, Pa.	Viva McNutt, Pa.
C. C. Beers, N. Y.	Mabel Mixon, Miss.
Cleland Bones, Va.	Loid Palmer, Mich.
E. O. Brookman, Mo.	Lemuel Pumpelly, Kan.
Blanche E. Brown, Ohio.	Lewis Ruff, Ohio.
Sallie Cavener, Mo.	C. Q. West, S. C.
Joe B. Edwards, Ill.	David Wilson, Mich.
Mrs. J. W. Ellis, Mass.	Esther Wolford, N. Y.
Wahnetta Fisher, Ohio.	Helen Zimmerman, N. C.
John B. Waterhouse, N. J.	

THOSE whose names appear above have sent thirty-five points and won for themselves a place upon the FARM AND FIRESIDE Honor Roll in the Great Four-Pony Contest. Of all the contestants, these have so far done the best work. Besides getting on the Honor Roll, each one of the contestants above has obtained two valuable prizes already.

Don't You Want YOUR Name in This List Next Time?

Nothing in the world can keep you from getting it there if you will just hustle. All you have to do is to get all your friends to help you, and keep hustling; and it means a lot more for you than getting on the Honor Roll alone, too.

It is the easiest thing in the world to get "points" for as good and helpful a paper as FARM AND FIRESIDE. One of our contestants, Paul Spencer, of Iowa City, Iowa, said in a recent letter:

"Every one that I went to, who took FARM AND FIRESIDE last year, said he would rather drop some other paper than miss FARM AND FIRESIDE. One of them said he wouldn't miss the March number for a dollar."

This shows you what subscribers think of FARM AND FIRESIDE. We have thousands of testimonials just as good as this.

If you want to know what our last year's prize winners think of FARM AND FIRESIDE and the Four-Pony Contest, just read what Miss Viva McNutt, of Vandergrift, Pennsylvania, winner of the first prize last year, says:

"It was no trouble at all to get subscribers. Every one I asked would say, 'Let me see your paper,' and when I told them it was only twenty-five cents a year they said it was certainly worth it and they would take two if it was needed so I could get the pony. Some days I didn't get very many subscriptions, but the next day I would get enough for two days, so don't give up!"

Holland B. Alexander, of Dixon Spring, Tennessee, winner of third prize last year, said in a recent letter: "The music box I won in last year's contest is a beauty in every respect and is a joy forever to us all. You certainly treated me nicely, and I'm in this year to win a pony."

Now that you know how easy it is to get subscriptions for FARM AND FIRESIDE, hustle and get your name on the Honor Roll next time. It is lots easier than you think, and we will send you two prizes then.

Farm and Fireside
The Great Four-Pony Contest. Springfield, O.
"Get in the Saddle!"

The Summer Bulb Garden

BULBS are favorites with all, and are so easily grown and so satisfactory that many grow them who would not try to grow flowers from seed. The summer-flowering bulbs require no skill, and many of them require little attention after planting. The canna, caladium, tuberous-rooted begonia, dahlia and gloxinia all require to be started in March, for the best results, and the canna and caladium are the most popular of all the bulbs for display. The canna is easily grown, and attains large size; but whether grown for foliage or flowers, it must have rich soil and an abundance of moisture. The flowers of the canna now are very large, and can be had in nearly all colors, except shades of blue. Many of the finest dark-colored cannas produce both fine foliage and flowers.

The large-flowered dahlias are beautiful for bedding, and a hedge of the dahlia is very ornamental. They are strong growers and of the easiest culture, and if started early and given plenty of moisture during the summer they begin flowering in July and continue until frost.

In starting these bulbs, I use long, narrow boxes, allowing for only one row, and when ready to transplant I pull these boxes apart and slip out the bulbs without disturbing the roots. I use a rich soil, but no fresh fertilizers about them, as this causes rapid and unhealthy growth, and often decay, so I aim for slow, sturdy growth. In planting the bulbs see that both ends of bulbs are sound. If either end is unsound the bulbs will not grow, as the plants sprout from one end and the roots from the other.

Not all the summer-flowering bulbs require an early start. Many of them can be planted in the open ground. The most brilliant and gorgeous of our summer-flowering bulbs are the gladiolus, and these can be planted out in open ground the fifteenth of April, and should be planted at intervals of two weeks up to the fifteenth of July, so as to have a succession of bloom for the most of summer. The tuberose and tigridia are both beautiful summer-flowering bulbs that can be planted where they are to grow.

LAURA JONES.

Crumb Cover for Meat Pie

HOW to use a quantity of dry bread to advantage was the question before the house, and the manner in which the cook answered the query was so satisfactory that I wish to tell you about it.

A meat pie was to be the principal dish for dinner, and instead of the usual baking-powder biscuit crust there was a crumb cover. The dry bread had been put through the meat chopper, and the resulting crumbs seasoned with salt and pepper and moistened with stock, which contained a little fat, from the meat. A good thick layer of this mixture was put over the meat and gravy, as usually prepared for a meat pie. The dish was baked, covered, long enough to thoroughly heat the crumbs through, then the cover was removed and the crumbs browned slightly. This pie proved delicious served with a bowl of gravy made from the meat stock. RUTH V. CLARK.

Bead-and-Pearl Necklace

THE materials required for the bead-and-pearl necklace shown on this page are forty-eight beads, four strands of gold beads and a fastener.

Thread a needle, using No. 30 white thread double and one and one half yards long. Tie a knot in the thread and proceed as follows: Thread through a pearl bead and twenty gold beads and the eye of one side of the fastener, then pass the needle back through the twenty gold beads and the pearl again. Now use two gold beads, a pearl, two gold beads, a pearl and two gold beads. Then run the needle through the first pearl from the opposite side, and one of the pearl beads will be on the string. Use twenty gold beads, a pearl, two gold beads, a pearl, two gold beads, a pearl, two gold beads and through the first pearl until the chain is finished. Now run the needle through the other eye of the fastener, back through the twenty gold beads and the pearl, and tie a knot so as to hold it securely.

B. P. BALLIET.

Bead Bracelets

THE fad for short-sleeved waists which has taken such a hold upon the feminine public has given special prominence to bracelets. They are worn above or below the elbow, owing to the length of the sleeve, and also on the outside of the long gloves. One cannot have too many of these attractive adjuncts to the toilet, particularly now that Dame Fashion has decreed that they shall match the costume worn or be in decided harmony with it. This has given a great impetus to the sale of bead bracelets, since it is only in beads that one can run the full



The Housewife

gamut of color necessary. For those of slender purses, but fastidious tastes, this is a special boon, for beads are procurable at all prices, and each wearer may make her own bracelets to conform to whatever gown she wishes.

These bead bracelets are necessarily made from beads having large eyes, or holes, since they are strung on ribbon. The wider the ribbon, the more pleasing

mine quietly informed me that she was to be married in a short time to a young man who was then earning a moderate salary, and she was looking about a little for a suitable girl to do housework, and asked if I knew of any. I bluntly asked her what she expected to do. She said she expected to have quite a lot of company to entertain the first few months, and then she would have to look after John's welfare to a considerable extent, and, to tell the truth, she knew nothing about cooking, and very little about housekeeping, and she would have to learn, and she wanted some one who understood these things pretty well and could teach her. I told her that if I were in her shoes I would just postpone that wedding six months, and roll up my sleeves and learn how to cook a good meal and keep a house right. I told her she could qualify herself ninety per cent easier before marriage than after, and she had better do it. But she didn't, and tribulation came sooner than I expected. It was only the old tragedy that is being enacted in houses, not homes, all over the country by distracted, incompetent young wives and half-starved, disappointed young husbands.

Not long ago a nice young fellow, who was considered by about all the girls to be the best catch in that town, told me that he had decided to marry a certain young lady, a good-hearted, but quite plain-looking girl. I knew he could have any one of a dozen very pretty girls who were prominent in society circles, and I asked him how he happened to choose the one he did. Just a little thing did the business. He had to go to her home to help arrange a program for some sort of an entertainment, and the task occupied them quite a long time. When it was finished she asked him to wait a few moments and she would bring in a little lunch. It was ham sandwiches and cake. He jokingly asked her who made the bread and cake and cooked the ham. She informed him that she did, and she also made the tea while he waited. He declared it was the nicest and neatest lunch of which he ever partook, and he decided right there that she was the girl he needed, and a few weeks later she was wearing his ring. After they were married a few months I asked him how he liked her. He replied, with considerable emphasis, "She's a perfect jewel!" She is a good housekeeper and a good cook. By good cook I don't mean that she can



NECKLACE MADE OF GOLD BEADS AND PEARLS

is the effect, too, as a rule. A soft grade of ribbon will run through the eyes so much more readily than a stiff, heavy grade that it can be used in considerably wider widths. One must experiment with their beads to ascertain how wide a ribbon can be used.

The beads may be strung solid for the required length, leaving two ends of ribbon to tie in a graceful bow; or, as shown in the bracelet illustrated, the ribbon may be tied in a single knot between each bead. The bows may be made up full and fluffy, of numerous loops and ends, and a hook placed beneath, with an eye to correspond on the other end of the ribbon. In this way the ribbon does not become mussed so easily as when it has to be tied every time the bracelet is worn, but such a plan makes it necessary to have the exact arm measurement.

The bracelet shown is of large black beads strung on soft red silk ribbon, and is dainty indeed when worn with a red gown with a touch of black in the trimmings. Large coral beads strung on black or white ribbon are lovely, and amber is beautiful on ribbon just matching it. Ruby beads also look best on ribbon of the same shade, but turquoise or pink beads are pretty with white ribbon.

Some prefer several strands of smaller beads rather than one of the large. In that event narrow ribbon must be used. The strands are all strung separately, usually three or four. The ends of the ribbons are then united to hold the rows together, and a bow gives the finishing touch as before. MAE Y. MAHAFFY.

The Girl Question

MRS. W. G., a New York farmer's wife, says the reason that girl help is so difficult to obtain in this country is because the girls are too proud, or too shiftless to work. They want to be supported in idleness, she says, by their parents, then by their husbands. In some cases this is true, but there are many girls who are willing to work, and are able to do lots of it, but they do not wish to sacrifice the freedom they so much desire—freedom to entertain their friends, visit, and attend religious exercises of the different sorts. She was born and raised in Germany, and had to work hard for small pay, and she was kept so busy that she had little time to think of anything but work. Most of the girls in this country are not brought up to work, as they are in Germany. The majority of them are brought up to play, and look pretty; and when the time comes that they must step out and rely upon themselves for a living, or are married and are given entire charge of a home, they suddenly discover that they are woefully lacking in knowledge of practical affairs.

Some years ago a little lady friend of



AN EASILY MADE BEAD BRACELET

make "lovely" cake and "beautiful" angels' food, but she can prepare a first-class meal of the sort of food working people require to keep them in working trim.

According to Mrs. W. G.'s account, she is a hustler, and she declares she has no patience with the girls who desire to be, or are, only ornaments in a house. But it is useless to condemn the girls who are waiting like flowers to be plucked by some young man who admires a pretty face. The thing to do is to teach them what is expected in a home-keeper. To give them that motherly advice and instruction they will remember and find so useful in after years. I know a mother who declared she would rather do the work herself than to waste time trying to teach unwilling daughters how to do it. When her girls married they went to their homes with only the merest smattering of the knowledge required to make a good homekeeper.

What nonsense it would be to condemn such girls when they made a miserable failure of homekeeping and became burdens instead of helpmeets to their husbands. The wisest mothers are teaching their daughters to be first-class home-keepers first, and that all other accomplishments are secondary. No man that ever married a woman ever experienced any regrets to learn that his young wife is proficient in preparing and cooking good, plain, every-day food and in keeping a home in proper condition. But many a young husband comes to the conclusion in his own mind that he has been cheated when he learns that his wife is neither a cook nor a housekeeper, and that he must hire a servant to keep her and the house, too. A college education is all right if the parents can afford it. And music is all right, because it is very entertaining in a home. But skilful cooking and systematic housekeeping is far above all. They are the best, most important accomplishments a young woman can possess, because they are the foundation of health, comfort and real enjoyment of life. Every girl should acquire them. Every mother should consider it a sacred duty to see that her daughters are made proficient in these branches of homekeeping. Even if her married life should preclude the necessity for actively engaging in this work, a thorough knowledge of it often will be found more than useful.—F. G.

Moonshine

TO MAKE this excellent dessert, beat the whites of six eggs until stiff, add six tablespoonfuls of granulated sugar, and beat until dissolved. Then add one teaspoonful of strawberry jelly (any other jelly may be used, if preferred), and whip until perfectly smooth. Serve with cream or rich milk. This quantity is for six persons.

Browned Sweet Potatoes

THE Southern way is to boil the potatoes, then slice them in slices half an inch thick. Put in layers in a baking dish, with powdered sugar, bits of butter and powdered cloves, nutmeg and cinnamon between each layer. Pour over them one wineglassful of warm water and one tablespoonful of lemon juice. Sprinkle powdered sugar over the top, and bake a light brown.

Savoy Biscuit

ONE quart of flour, one pound of sugar, eight eggs, beaten separately, and one fourth of a pound of butter. Roll thin, cut in rounds, or squares, and bake in a quick oven. These are very nice to serve with coffee or tea. If desired, a little grated nutmeg and cinnamon can be sprinkled over the cakes before baking.

Old Virginia Loaf Bread

TO MAKE the sponge, boil one large Irish potato until well done, then peel, and mash it fine, adding a little cold water to soften it. Stir into it one teaspoonful of sugar, one tablespoonful of sweet lard and three tablespoonfuls of good hop yeast. Mix thoroughly, then put the sponge in a covered mug with a close-fitting top, and let it stand four hours to rise. Sift into the tray three pints of the best family flour, to which add one teaspoonful of salt. Then pour in the sponge and add enough cold water to work it up into a rather stiff dough. Knead it until the dough is smooth, and let it stand all night to rise. Work it over in the morning, using just enough flour to keep it from sticking to the hands. Let it rise one hour before baking, then bake one hour in a moderate oven. Use a little lard on the hands in making out the loaves. This prevents the crust from becoming too hard.

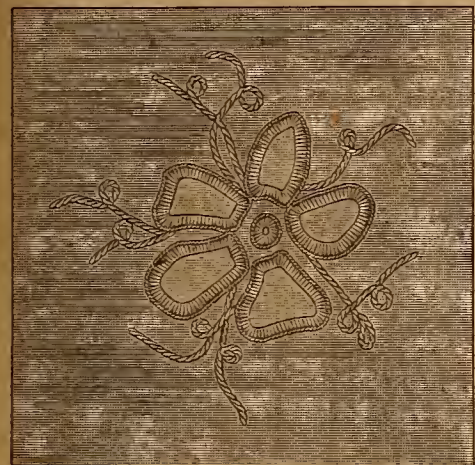
Raisin-Lemon-Cream Cake

THE following ingredients are necessary: One cupful of butter, two cupfuls of sugar, five eggs, one scant cupful of milk, two teaspoonfuls of baking powder, three cupfuls of flour and one and one half cupfuls of seeded raisins. Beat the whites and the yolks of the eggs separately; cream the butter and sugar; add the yolks of eggs, and beat; sift the flour and baking powder together, and add it a cupful at a time with the beaten whites of eggs; pour the milk in slowly. Flour the raisins, and add them last, and beat all together. Flavor with vanilla, and bake in jelly tins.

To make a good filling for this cake, add the juice and grated rind of one lemon to two cupfuls of water, and put on the stove to boil. While waiting for this to boil, mix three tablespoonfuls of sifted flour with one half cupful of water, and add to this one and one half cupfuls of sugar; then pour the mixture slowly into the boiling water and lemon, and stir constantly until it is the desired thickness. When done, pour it into a bowl to cool, and add a pinch of salt and a lump of butter the size of a hickory nut. When cool, spread between the layers of the cake.

A New Kind of Applique

For the past year or more shadow embroidery has been foremost among the many styles of needlework, and now comes a shadow appliqué which bids fair to usurp the place of its forerunner in the hearts of needlecrafters. Appliqué effects of all kinds are steadily forging to the front in artistic circles, and as the possibilities in the shadow work seem greater than in the various other methods now followed, it is quite needful that every one who wishes to be up to date along needlework lines should master the simple details of this particular variety. This is a very easy matter, since no new stitches are to be learned. The only requisites are neatness and a steady hand when the cutting-away process is reached. Any design—floral, conventional or geometrical—which does not include too many small details is suitable for this work, and this alone gives it an advantage over the regular shadow embroidery, which calls for long, narrow figures in order to use the herringbone stitch correctly. Such materials as swiss, organdy, batiste, thin muslins, sheer linens, chiffons,



APPLIQUE

etc., form the background material, while the appliqué is of something heavier, like lawn, linen, nainsook or silk. The soft embroidery cottons are used in the all-white appliqué, but where color is desired it is safer to use a good silk floss, so there will be no danger of fading.

The design is stamped with a double outline, and the two fabrics are basted together, flat and smooth, with the weave running the same in both and with the finer uppermost. The edges of the flowers or figures are then padded and worked in buttonhole stitch with the purled edge outward, or in a close satin stitch. Stems and veins are outlined or worked in some fanciful manner, like cable or chain stitch. Centers of flowers are solid, or may be made up of a group of French knots; or a single eyelet is frequently used. Where there are large, plain surfaces, they are often relieved by seed stitches, French knots, stars, trefoils, and the like. After all the stitch work is completed the basting threads are removed and the thickest or underneath material cut away from around the design. The pattern itself is thus carried out in two thicknesses, while the real article is formed of only the sheerest.

The work is suitable for any purpose to which sheer goods can be put. It looks beautiful on highly polished tables and stands, and forms an ideal bedroom set, particularly when used over a colored lining. Baby pillows, ties, collars and cuffs, lingerie waists and children's dresses are charming decorated in shadow appliqué. Yokes and collars of chiffon or bolting cloth with the appliqué of silk are among the most lovely of all dress accessories, and can readily be made by even the least experienced embroiderers if they exercise care and accuracy.

Bands are utilized as insertions in dresses, or the designs are worked directly on the sheer dress material itself. Such a trimming is illustrated, the motif being that of buttercups in a running design. A small cover for a round pin-cushion top is also shown, a conventionalized wild rose forming the design. Scarfs, table runners, doilies and center-pieces are all seen in this work, and are so easily and inexpensively made that no one with the necessary amount of application need deny themselves such attractive belongings. MAE Y. MAHAFFY.

Hanging Baskets

ALL WHO grow flowers like to have trailing or creeping plants for pots on brackets or baskets, and as many do not keep plants over winter, they wish something that will grow rapidly and for quick effects. One of the most beautiful plants of recent introduction for hanging baskets is the asparagus sprengeri, or emerald feather. If not root bound this grows rapidly, but must have rich soil and plenty of moisture. The suspended baskets require constant care, as in ex-

posed positions they dry out more rapidly than plants, that are lower down, and therefore much more moisture is necessary.

The oxalis is very satisfactory as a basket plant, and the flowers of the pink or yellow varieties are very bright and pretty. Several bulbs should be planted together, as one or two do not make any show, and half a dozen are necessary for a six-inch pot. The oxalis requires some sun, and will not do well in a dense shade. It should have the early morning and late evening sun. The weeping lantana is perhaps the best of all the flowering basket plants. The clear lilac-pink flowers are produced by the hundreds, and are very fragrant. The plant has a graceful, drooping habit of growth.

The ivy geraniums are good basket plants, but they seldom bloom before they are a year old.

Some of the annuals make fine basket plants for one season. They grow rapidly, bloom well and are inexpensive. The giant double-flowered alyssum is a fine basket plant. The flowers are white and very fragrant, and the plant blooms until late in the season and stands a low temperature well. The old wandering jew also makes one of the best of the green trailing plants for baskets.

The baskets should be taken down at least once a week and placed in a tubful of water and allowed to soak for at least ten minutes. LAURA JONES.

Ventilating the Bedroom

MRS. A. V., Wisconsin, says her bedroom is only ten feet square, and she and two children sleep in it, and she would like to get in some fresh air during the winter. She says, "If I raise the sash there is a cold draft across the bed. If I lower it the cold air rushes right down on me, and seems to make the room colder than outdoors." I like lots of fresh air in my bedroom in winter, but I cannot stand it to have a window open either above or below in severe weather. I fitted a board six inches wide close to the bottom of the sash, inside, then raise the window nearly to the top of it. The air comes in where the upper and lower sashes are parted, and goes up instead of directly on the bed, and passes out through a window in a closet on the opposite side of the room. It works nicely and without any direct draft.—F. G.

Old-Fashioned Pound Cake

TWELVE eggs, one pound of butter, one pound of sugar and three fourths of a pound of flour. Beat the eggs separately until very light. Wash all salt from the butter, and sift the flour into it a little at a time, creaming quite smooth. Beat the



APPLIQUE

yolks of the eggs with the sugar, add the whites, and beat together until very light. Add these to the flour, and mix well. Season with one teaspoonful of lemon extract. Butter the pans, and bake, giving it time to rise as you would loaf bread.

Arlington Tea Cake

ONE pound of flour, one pound of sugar, one half pound of butter, two eggs and one and one half teaspoonfuls of cinnamon. Mix the butter and sugar, then the eggs, and lastly the flour, into which sprinkle the cinnamon. Roll thin, cut with a cake cutter, glaze each cake with the beaten white of egg, and sprinkle nutmeg and cinnamon over them. Bake in a moderately quick oven.

A recent news item is headed "Every Farmer in Kansas Has an Automobile." Which FARM AND FIRESIDE farmer is going to get the one we offer? You still have as good a show as any one.

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TAKE a very old coffee-cup, or a dish, that is crisscrossed with lines—and yellow from use.

Wash it thoroughly with soap and water. Dry it.

Hold it close to your face, and then sniff.

That sour, unpleasant odor tells you that there are decayed food particles and germs lurking in all of these tiny cracks.

And that soap and water have had no effect upon them.

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Now you see how important this matter of dish washing really is—and how necessary it is to have dish water that digs.

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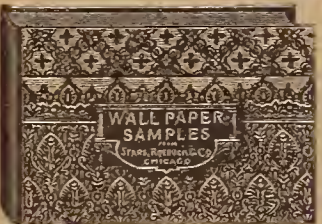
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What the Styles Will Be at Easter

By Grace Margaret Gould



No. 905—Box-Plaited Eton

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, two and three fourths yards of thirty-six-inch material, or one and three fourths yards of forty-four-inch material

No. 906—Eleven-Gored Box-Plaited Skirt

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt in front, 41 inches. Quantity of material required for medium size, or 26 inch waist, eight yards of thirty-six-inch material, or six yards of forty-four-inch material

IN THE array of Easter fashions the short coat will be emphasized. The Eton in many variations will continue to be the fashion leader even though it hasn't the slightest claim to something new. There will be Etons in vestment effects, double-breasted, single-breasted and box-plaited Etons, and others cut on Empire lines. There will also be a sort of combination pony and Eton coat, called the poneto, but each and every one of them will show the short sleeve. It may peep out from a series of plaits which extend over the shoulders, or it may droop to be in harmony with the draped shoulder. And then, again, it may have the Japanese-robe effect, which is now often called the sling sleeve. A few three-quarter sleeves will be worn, and of course the knock-about tailored skirt-and-coat suits will have long sleeves. But for all the little fanciful coats it is the very short sleeve that will be used.

Skirts are to be more elaborate than for some time past. Kilted skirts will be worn all through the spring, and box-plaited skirts are high style, especially when the trimming is arranged on the box plaits. It is the way the plaits are introduced in the new skirts that give them their special touch of novelty. Overskirt effects are also good style. Very few plain skirts will be worn this spring. No matter how varied the skirts may be as to the arrangement of plaits, tucks, folds and trimming bands, they are all alike in the fact that they are fitted carefully and closely over the hips, and have much fullness at the bottom.

How to Order Patterns

For every design illustrated on this page we will furnish a pattern. The working directions of each pattern are carefully explained on the pattern envelope. In ordering, be sure to mention the number of the pattern desired and the size required. The price of each pattern is ten cents. Send money to the Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York.



No. 901—Jumper Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, one and five eighths yards of twenty-seven-inch material, or one and one eighth yards of thirty-six-inch material, with three yards of all-over lace for guimpe

No. 902—Gored Skirt Trimmed to Simulate Overskirt

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt in front, 42 inches. Quantity of material required for medium size, or 26 inch waist, eleven yards of twenty-seven-inch material, or nine yards of thirty-six-inch material

This style of costume will develop well in the new soft silk and cotton mixtures. In any of the lovely tissue fabrics it would be attractive, and in lodia muslin or printed or striped silk mull. It would look well also in voile or panama.



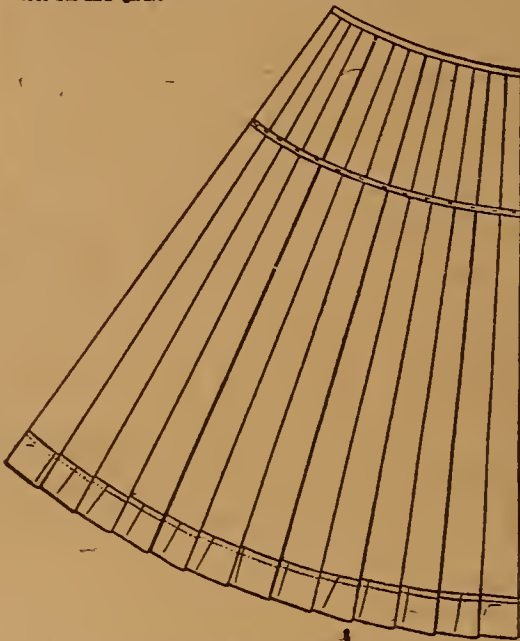
No. 904—Gored Circular Skirt

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt, 42 inches all around. Quantity of material required for medium size, or 26 inch waist, six and one half yards of thirty-six-inch material, or four yards of forty-four-inch material, with fourteen and one half yards of lace insertion for trimming



No. 900—Waist with Shield Bib

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three yards of twenty-two-inch material, or two yards of thirty-six-inch material, with one and one half yards of silk for bib and girdle



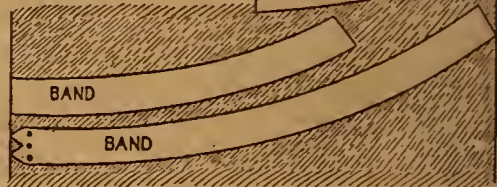
No. 892—Showing the Inside of the Skirt with Tape Adjusted Around the Hips to Keep the Plaits in Place

SEPARATE skirts for spring are quite short, most of them being three inches from the ground, while the more extreme models just cover the shoe tops. Plaited skirts are by far the most fashionable; some are plain and finished with a deep hem, while others have two or three deep tucks above the hem.

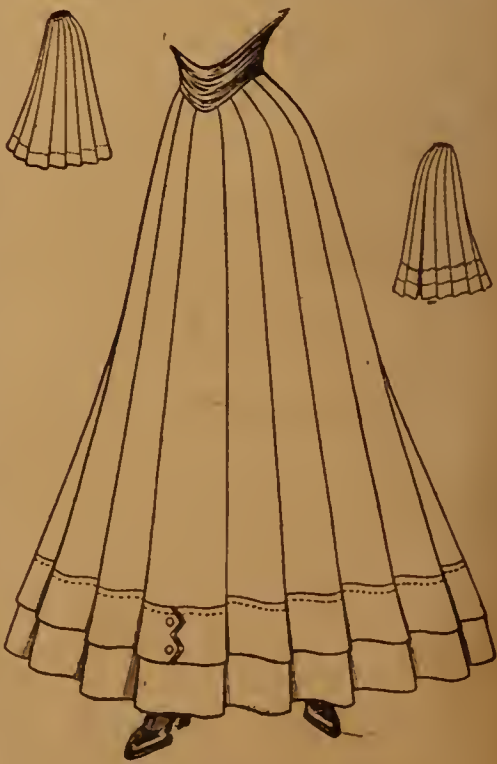
One of the smartest of the spring skirts is the subject of this month's dressmaking lesson. It is a plaited skirt trimmed with a deep, shaped band, which fastens in front. This skirt pattern No. 892, Plaited Skirt with or without Trimming Band, may be ordered from the Pattern Department of The Crowell Publishing Company, 11 East 24th Street, New York City. The price of the pattern is ten cents.

The amateur dressmaker usually looks upon plaited skirts as "impossible." They are, to be sure, more difficult to make than the ordinary gored skirts, but this plaited skirt (No. 892) is especially practical and may be attempted successfully, too, by the woman who only sews a little.

FARM AND FIRESIDE patterns are designed principally for the amateur dressmaker.

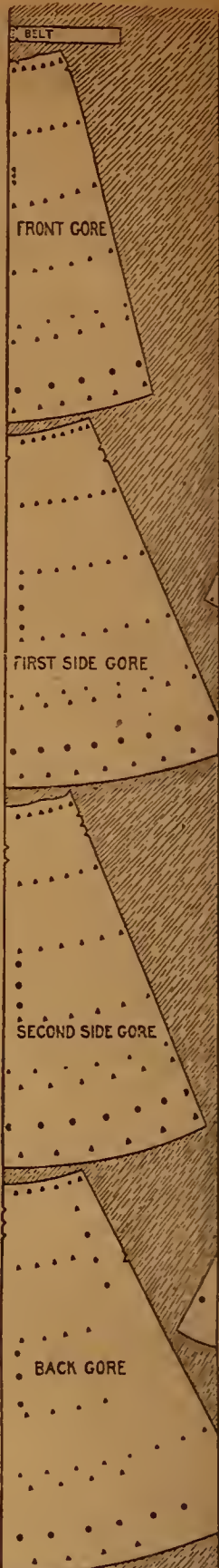


No. 892—The Most Economical Way of Placing the Pieces of the Pattern on Material Fifty-Four Inches Wide



No. 892—Plaited Skirt with or without Trimming Band

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt, 39 inches. Quantity of material required for medium size, or 26 inch waist, ten and one half yards of thirty-six-inch material, or five and seven eighths yards of fifty-four-inch material. This pattern may be ordered from Pattern Department, The Crowell Publishing Company, Madison Square, New York City. The price is ten cents. In ordering, be sure to give number of pattern and waist measure.





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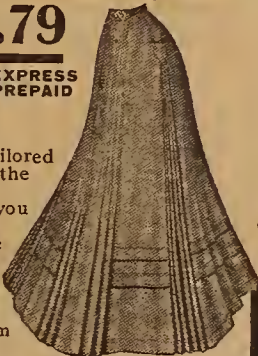
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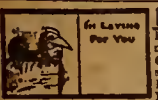
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Sunday Reading

Sympathy

SYMPATHY is a form of Christian service. It is not a favor granted by one and received by another; it is that action by which one life enters into another's life, takes up a portion of the burden, shares the joy or success, becomes for the time being a part of that life, and contributes to it some of its own strength. It does not weaken the individuality of the life it helps; it rather strengthens it. It does not lessen its responsibilities; it helps to bear them. By relieving the tension it gives opportunity for development, by companionship gives new courage and fresh ability for advance when the assisting presence is withdrawn.—Independent.

Beyond

"WHAT a beautiful silver lining that cloud has!" "I cannot see it," replied her companion. "Ah! but you are sitting in the shade of a tree; come out here." Dear friend, can you see no silver lining to your dark cloud? Go ahead a little, perhaps just a few steps, and you will see the Sun of Righteousness shining on the gloom and transforming it into light and beauty.—B. M. S. in Evangelical Messenger.

How to Make a Church Prosper

THIS has ever been an interesting problem, and probably always will be, and its solution is admirably set forth in some plans laid down by the Reverend O. L. Williams:

1. Attend all services regularly. If possible, be on time; you need at least five minutes after coming in to find a seat and to compose body and mind for the service.
2. Never miss a service needlessly. If you have visitors, invite them to go with you; they will respect you more as a Christian if you are faithful to your duty.
3. If it rains or snows, make a special effort to go. Our churches stand much in need of stormproof religion.
4. Take part in the service; you go to worship, not to be entertained.
5. Be devout in every attitude; all whispering should be studiously avoided. Find the hymn, and sing it if you can; and share the book with your neighbor.
6. Speak to strangers, and invite them to come again; a hearty handshake will add much weight to the invitation.
7. Be friendly to all. Remember, handshaking has not gone out of style. A hearty Christian greeting means much by way of cheer, comfort and encouragement.
8. Accept gladly any work assigned you. If pastor, or some one else, is struggling under a load, take hold and help. At least, do not increase the burden.
9. Always show proper respect for others' opinions. Never insist on having your own way against the majority. This is an age in which majority rules.
10. Never encourage strife, but be a peacemaker. Peacemakers, you know, are called "the children of God."
11. Avoid gossip as you would an enemy; it is one of Satan's best agents for starting church troubles.
12. Give cheerfully, according to your ability. The Lord has dealt bountifully with you, hence you should be liberal to his cause.
13. Take a church paper. Church members should keep posted on the affairs of their church.
14. Think of services through! the week, speak of them to others, and pray that they may be attended with divine blessings.
15. Pray for the sick and the poor. Help the Lord to answer your prayers.
16. Pray for the pastor. His usefulness will be greatly increased by the daily prayers of all the people.
17. Pray for some unsaved soul in particular.
18. Pray, pray, pray! Keep prayed up to date. No Christian should be back in his prayer accounts.
19. It is a great deal braver to try to do something to better conditions than to stand around and criticize. If you mean to help along, don't get in front and block the way. Get behind and push. You will then see how little you feel like finding fault with the burden bearers after you have shouldered your part of the load.
20. In short, pray, praise, push, and keep sweet!

One of the illusions is that the present hour is not the critical, decisive hour. Write it on your heart that every day is the best day in the year.—Emerson.

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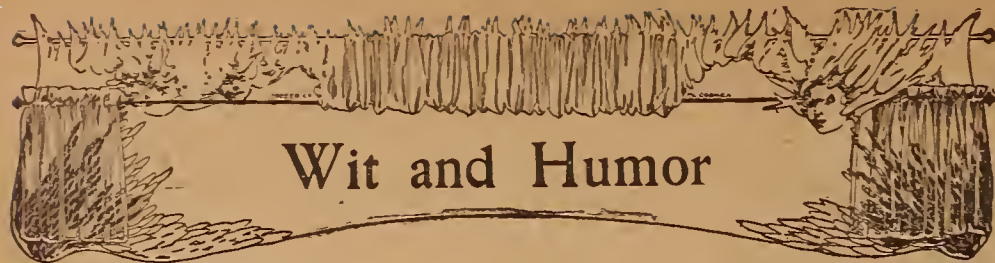
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Wit and Humor

The Dog and the Wedding

Brownie is a black-and-tan terrier in the household of the Rev. L., the pastor of the Methodist Church in W., Ohio.

Brownie is a most observing dog, and quickly distinguishes between mere callers at the parsonage and guests. He pays very little attention to guests, only to treat them with true canine civility. But callers must notice him. His method of attracting their attention is to sit bolt upright before them, and remain in that position until their attention is drawn to him, when he responds with a few turns on his feet, and a subdued bark, and his part with the callers ends.

A few days ago he introduced an innovation—a sort of new episode in his drollery. As no one ever taught him, he evidently hit-upon it himself. In truth, he was never taught any of his droll ways, but seems to have just picked them up. On the occasion just referred to, a couple



—Black and White.

HOW TO TRAIN THE WIFE

Encourage her to take an interest in the greenhouse. You can't expect her to do everything, but show her the way. The effect of practical example is often very striking.

came to the parsonage to be married. As soon as the couple had taken their places on the floor, and his master began the ceremony, Brownie came and sat straight up alongside his master and in front of the groom. At every response the groom or bride made, Brownie would whimper and give a little bark, as though he were emphasizing their responses, and saying to them, "Now, don't forget what you have promised."

This act of his was so droll and amusing that all seriousness was forgotten, and the end of the ceremony broke out with a laugh from all present. Brownie seemed to be more delighted than any, as he danced about among those present, uttering little barks, as much as to say, "See how I helped to make this a happy wedding." His master now calls him his matrimonial assistant.—Western Christian Advocate.

Treatment for the Eyes

"You told me your husband had large fine eyes. I didn't notice it."

"Wait a minute or two, till the milliner comes along with my new hat and the bill."—Meggendorfer Blaetter.

Why Should They?

MISTRESS—"Babette, when I was driving in the park the other day I saw a nurse allow a policeman to kiss a child. I hope you never allow such a thing."

BABETTE—"Non, madam; no polizeman would think of keesing ze child ven I was zere."—Tit-Bits.

An Example of Patience

SUBSCRIBER—"Central, here I've been at the 'phone for ten minutes."

CENTRAL—"Yes, but that's nothing. I've been here all day."—Liberté.

The Anatomy of Jocosity

"I say, D'Orsay, have you ever heard that joke about the guide in Rome who showed some travelers two skulls of St. Paul, one as a boy and the other as a man?"

"Aw, deah boy—no—aw, let me heal it."—Boston Transcript.

Doing His Part

"Is it a fact that your mother-in-law threw herself out of the third-story window and you did nothing to restrain her?"

"Excuse me; I went to the first story to catch her, but she had already passed!"—Il Diavolo Rosa.

A Shrewd Turn

When the bottom dropped out of the boom in Kansas a great many years ago, the desire to get rid of the property was as great as it had been to acquire it.

One day a lawyer while traveling along a country road met an old friend of his wearily but happily leading a reluctant cow toward town. Inquiry drew out the reply that he had acquired the cow in exchange for a city lot.

"And do you know," said the new owner of the bovine, laughing, "I just turned a great trick with that old be-whiskered rube. He can't read a word, and in the deed I worked off two lots on him instead of one."

Cautious All Around

HOTEL CLERK (suspiciously)—"Your bundle has come apart. May I ask what that queer thing is?"

GUEST—"This is a new patent fire escape. I always carry it, so in case of fire I can let myself down from the hotel window. See?"

CLERK (thoughtfully)—"I see. Our terms for guests with fire escapes, sir, are invariably cash in advance."—New York Weekly.

Bad Feeling

CLARA—"She puts lots of feeling into her singing, doesn't she?"

FERDY—"Yes; but it must be awful to feel that way."—Smart Set.

Reading Newspapers

Some women think the usefulness of a newspaper is having plenty of old papers in the kitchen to put on the shelves or wrap bundles in. They never glance inside a paper; if they do, it is to read some trivial stuff which children say, or take a hurried glance at the society column.

Not long ago one woman saw an article headed "Sankey and Moody," a narrative regarding past glories of the two men. She did not read the article, but threw down the paper, exclaiming, "Sankey and Moody. Sankey and Moody. I get disgusted reading about these old pugilists."

If one woman had read books a little more very likely she would not have been the innocent cause of some laughter at a party one evening, when some one asked her if she had ever read "Enoch Arden." She looked wise, yawned, and replied,



—The Sketch.

SHE—"Are you fond of shooting, Mr. Toot-Toot?"

MR. TOOT-TOOT—"No, I can't bear killing things. I'm so soft-hearted; I wouldn't hurt a fly."

"Oh, yes; but I don't believe he ever went to sleep and slept for twenty years!"

One lady of the top notch of society realms reads not, neither does she observe, but her loquacious spirit cannot be surpassed. Evidently she is easily amused, for she made the remark that there was nothing she enjoyed more while on a trip to Chicago than standing on the balcony at the hotel, watching the street cars come "pro and con."—Woman's National Daily.

Important Notice to Subscribers

So many of our best subscribers, whose subscriptions are all paid up for months in advance, have written us about the great Last Chance Offers, asking if they might take advantage of them, that we have decided to make these offers open to all. For a few days, now that the heavy subscription work is over in our office, we are willing to receive subscriptions in advance from all subscribers, no matter whether their subscriptions have expired or not.

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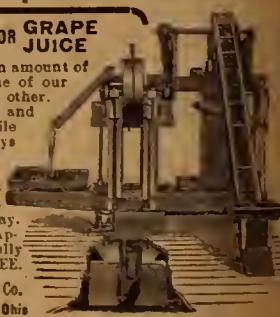
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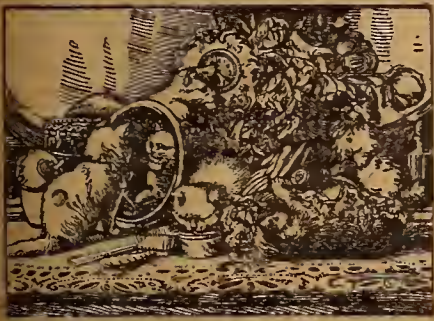
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NOTICE

This Department to Be Discontinued

It has been decided that it will be for the best interests of the great majority of our subscribers to discontinue this department, and devote the space to farm reading matter.—Editor.

Right of Property Between Husband and Wife

B., Kansas, writes: "A man lost his health through hard work, sickness and fever, and is also rheumatic, not being able to work hard. Can the wife, being of an irritable disposition, leave her husband and claim half of the property? Can the wife have the whole right in regard to religious training of the children?"

In all such matters of controversy between the husband and wife the court makes that decision which will give justice to all the parties. The wife is not entitled to dictate the kind of religious training that children are to have in opposition to the husband's wishes. If either has a right to determine such a question, I would say it would be the husband, as the head of the family, yet this matter would also be passed upon by the court.

Divorce and Immediate Remarriage

B. E. M., California, writes: "I have a very dear friend who has been separated from her husband. He deserted and has not supported her and her children for six years. Is there any state in which she can get a divorce and get married soon after, or can she get a divorce in any state and go to another and get married?"

By the laws of California I understand that divorced persons are not entitled to remarry until one year has elapsed, and then they are required to get the consent of the court granting the divorce. In other words, this divorce does not become valid until one year has elapsed, and in my opinion they are in very great danger of prosecution for bigamy if a marriage ceremony was performed anywhere before the year has expired. If the party desired to get a divorce in another state, she would be required to go there and have a permanent residence for the time required by the laws of that state. This is generally for a period of one year.

Right of Property Under Joint Deed

A. S., Michigan, writes: "A. and B. are man and wife, both having been married before, and each having children living by first marriage. They now have a joint deed of a farm. If A. dies first, does B. have the farm for her own, or do A.'s children have a share?"

Formerly, under the old common law, property held jointly as above indicated would be said to be held by the parties as joint tenants, and under the laws applicable thereto the survivor would be entitled to the whole estate, but that rule is not applied as a general thing in the United States now. Where property is deeded to two persons or more, they are tenants in common, and each holds his share individually, and when he dies it descends just like property held separately. Therefore, if one of the above parties dies, his half interest would go to his children subject to the dower rights of the other.

Right of Inheritance

H. W., Kansas, writes: "A man and his wife raised a family in Kansas, consisting of four boys and two girls. Before the children became of age the father and mother were divorced. The court left it with the children to stay at home with their father or go with their mother, as they might wish. Their father married a second wife. The latter had money, which she turned over to pay off the debt on the homestead. Everything went well for some years, when the husband died and left a will, leaving a small sum to each of the children by his first wife. Having no children by his second wife, he left to her all his belongings—that is, all over and above those he mentioned in his will for his children. Can the children claim anything over what was left to them by their father?"

If the will was legally made and the

father was not unduly influenced or acting under restraint, the children are bound to accept the provisions of the will, no matter whether they may think they are entitled to some of the property or not. Nor does it make any difference when the property was accumulated.

Distribution of Property

C. C. C., Nebraska, writes: "All personal property and all real estate are in a wife's name. The husband is living, and the children are all of age and are all married, save one son. At the death of either wife or husband, how should the property be divided? Said property is in the state of Wisconsin."

At the death of the wife the husband would have a life estate—that is, he would have the right to use the property during his lifetime—and at his death it would be distributed equally to the children. The husband's death would in no way affect the property, if he should die before his wife, other than when the wife died it would in such case be distributed at once and equally among the children.

Location of Road, etc.

C. B., Wisconsin, writes: "A farmer here owns land on both sides of the section line. Farmers want a road through there, but he will not let them have it, and he has built a house right on the line. Has he a right to stop them? It would be just one mile to school that way, and the children have to walk three miles now."

Roads are generally located by petition to county commissioners or other persons in authority, and they appoint viewers to go out and examine the proposed route, and report thereon. If these viewers think that a road should be built, they would report in its favor and would try to make it so that the house would not have to be removed. If the road viewers were of a contrary opinion, they would decide against the road.

Right of Grown Child at Parent's Home

B., Kansas, inquires: "Can a daughter of legal age compel her father to pay her wages? Must her father keep her at home, pay or no pay? She is not absolutely needed, there being six children under age at home. She is the oldest, twenty-one. The daughter also insists upon having a right to go to dances and come and go as she pleases, being quarrelsome."

In no instance is the right of a child in the father's home superior to the father. He is the master there, and this would be true even before the party became of age. If the child is unruly and ungovernable as far as the question would affect the child and the parent, the parent could compel the child to stay away after the child becomes of age. The parent has no legal obligation whatever to furnish a home for the child, and could act toward the child under the same right as he would act toward a stranger. Unless the parent agreed to pay her wages, none could be collected.

Right of Tenant to Sell Fodder

F. G. S., Minnesota, writes: "If a tenant renting a piece of land for corn moves away in the fall and disposes of the stalks to a neighbor, can the next renter forbid this neighbor letting his cattle run in the stalks or on the said land?"

As a general rule, a tenant has no right without the consent of the landlord to sublet or rent to another person any part of the land, so he would have no right to sell the standing corn stalks to a person without the consent of the landlord.

We want all of our Farm and Fireside readers to use the Madison Square Patterns in making their own and their children's clothes. To those who do their own sewing, we will send absolutely FREE our Quarterly Style Book. This book contains two hundreds of the latest designs to be worn during the coming Spring and Summer. Address

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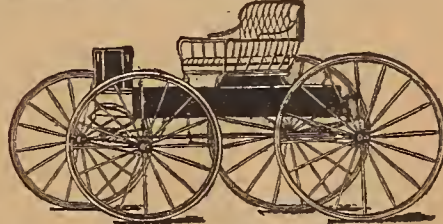


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MADISON SQUARE PATTERNS

Our Spring and Summer Catalogue of Madison Square Patterns Sent Free Upon Request
Order all Patterns from Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York City

FULL DESCRIPTIONS AND DIRECTIONS—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, *with a picture of the garment to go by.*



No. 894—Band-Trimmed Russian Suit
Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, four and three fourths yards of twenty-seven-inch material, or three and one eighth yards of thirty-six-inch material, with one yard of contrasting material for trimming. 10 cents.



No. 895—French Dress with or without Guimpe

Pattern cut for 2, 4 and 6 year sizes. Quantity of material required for medium size, or 4 years, three yards of twenty-seven-inch material, or two yards of thirty-six-inch material, with one and seven eighths yards of all-over embroidery for the guimpe. 10 cents.



No. 896—Dress with Side Trimming, with or without Guimpe

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, five yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material, with two yards of all-over embroidery for guimpe. 10 cents.



No. 893—Yoke Dress for Boy or Girl

Pattern cut for 2 and 4 year sizes. Quantity of material required for 4 year size, four and one half yards of twenty-two-inch material, or three yards of thirty-six-inch material. 10 cents.



No. 898—One-Piece Dress with Side Opening

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No. 879—Tucked Waist with Pointed Yoke

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five and one fourth yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material. 10 cents.

No. 880—Five-Gored Skirt with Tucks

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt in front, 42 inches. Quantity of material required for medium size, or 26 inch waist, ten yards of twenty-two-inch material, or eight yards of thirty-six-inch material. 10 cents.

We want all of our FARM AND FIRESIDE readers to use the Madison Square Patterns in assisting them to make their own and their children's clothes. To those who do their own sewing we will send absolutely FREE our Quarterly Style Book. This book contains two hundred of the latest designs to be worn during the coming spring and summer.

ARE you about to start the spring sewing for the little people of your family? If you are, there is no doubt about the perplexities that confront you. Each year at this season it is always so difficult to know of something new and something that will prove attractive for the little daughter's spring and summer clothes. It is just because of this fact that this special page of advanced fashions for children's frocks has been prepared.

A study of the page will show that the side closing and the side trimming are to be emphasized in the newest of the little dresses. Many frocks will show a band of trimming at the left side and none at all at the right.

Guimpe dresses are to be more the fashion than ever, and will be shown in a variety of designs.



No. 899—Suit with Plaid Skirt and Loose Coat

Pattern cut for 8, 10 and 12 year sizes. Quantity of material required for medium size, or 10 years, four and three fourths yards of thirty-six-inch material, or three and one half yards of forty-four-inch material, with three fourths of a yard of all-over embroidery for vest. 10 cents.



No. 897—Box-Plaid Coat

Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, six yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material. 10 cents.



No. 790—Tucked Tailor-Made Shirt Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one fourth yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material. 10 cents.



No. 802—Seven-Gored Skirt with Fan Plaits

Pattern cut for 24, 26, 28 and 30 inch waist measures. Quantity of material required for medium size, or 26 inch waist, eight and three fourths yards of twenty-two-inch material, or six and one fourth yards of thirty-six-inch material. 10 cents.

ALL PATTERNS 10 CENTS EACH

When ordering be sure to comply with the following directions: For ladies' waists, give BUST measure in inches. For skirt patterns, give WAIST measure in inches. For misses or children, give age in years. To get BUST and BREAST measure, put tape measure ALL of the way around the body, over the dress, close under the arms. Order patterns by their numbers. Satisfaction guaranteed or money refunded.

FREE We will give any TWO of these patterns for sending TWO yearly subscriptions to FARM AND FIRESIDE at the regular price of 25 cents each. When ordering "write your name and address distinctly." We will send FARM AND FIRESIDE One Year, new or renewal, and any ONE **Only 30 cents** pattern for

For other new and up-to-date designs see page 24

The Grange

BY MRS. MARY E. LEE

TWO-CENT FARE

OWING to the widespread interest in two-cent-fare legislation I asked Hon. J. R. Freiner, author of the Ohio two-cent-fare law, to make suggestions. He writes as follows: "It would be well to copy our law, as it has stood the test of fifty years. We changed but two words in the old law, making the 'three' read 'two,' and the word 'eight' in the evening-up line, as it is called, read 'five,' thus making a minimum charge of ten cents. That is, from one up to five miles the fare is ten cents; after that, straight two cents on a multiple of the nearest five. Thus if the distance is six miles, twice six is twelve. The nearest multiple is ten; the fare therefore is ten cents. If the distance is seven miles, the nearest multiple would be fifteen. This avoids penny deals and at the same time gives and takes.

"There is a world of argument in favor of two-cent fare, placing the poorest on the same footing with the rich. In Europe first-class fares run from three to three and six tenths cents a mile; second-class, two and two tenths, and third-class, one and one half cents. Nearly every one rides on third-class fare, and it is a common remark that none but the nobility and the fools of America ride first-class. Eight hundred and twelve out of every thousand ride third-class. There the rich pay the high figure, and here the rich ride free and the middle class pay the fares.

"After steam roads in Ohio got in sharp competition with interurban roads they charged from one and one fourth to one and one half cents a mile; yet, with a divided business, they show a large increase in earnings.

"The worst thing to be met will be the railroad men, who will come in by the hundred. When these came to me I showed them that the New York, New Haven and Hartford Railroad increased its earnings fourteen million dollars from 1898 to 1904, yet when the freight handlers struck for an increase of wages the company claimed their expenses were so greatly increased that they could not pay more. They did not get a cent's raise. The next year the same company increased its earnings more than three million dollars making the increase in earnings above seventeen million dollars in five years. The men struck again, and were again whipped, on the plea that there were not sufficient profits to grant an increase.

"Large receipts do not bring large wages, as labor is a commodity that is bought as cheap as possible, just as other commodities are bought.

"I sincerely hope that others will succeed in the fight for two-cent fare."

THE OBSERVATORY

Indiana has secured the two-cent fare on steam railways.

George Black, for twenty-six years secretary of Kansas State Grange, has been raised to the position of Master. Mrs. Westgate, who has the love of the National Grange, writes that both Mr. and Mrs. Black are cultured people who will grace any position in life.

The Michigan State Grange favors the initiative and referendum, uniform textbooks, the combining of teachers' and farmers' institutes, favoring road taxes to be paid in money, the employment of convict labor in road building, and a simplification of the present primary election law.

Every crisis in the history of the world has produced orators to arouse the people, and writers and singers to carry the message to their hearts. The time before the Civil War developed a really American literature, and those who have a lasting place in the hearts of the people wrote and spoke and sang for freedom. We are in the midst of another revolution, greater than the Revolutionary or Civil War periods.

Mrs. T. C. Atheson, endeared to all those who attended the National Grange, because of her gentle courtesy and sincere desire to make all happy who come near her, sheds the same beneficence over the students at the University of West Virginia, where her husband is dean of the college agriculture.

She is a member of the Woman's League, composed of the faculty wives and the student girls. This league is divided into five sections, with five ladies and thirty-one girls in each section. The faculty ladies entertain once each month at the same hour in five homes.



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St. Louis, Mo.

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2 Full Gallons Free to Try—6 Months Time to Pay

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I ship my thick pigment, which is double strength, freshly ground, in separate cans, and in another can, I ship the pure, old process Linseed Oil—the kind you used to buy years ago. Any child can stir them together.

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My \$100.00 Cash Guarantee

I guarantee, under \$100 Cash Forfeit, that the paint I am offering you does not contain water, benzine, whiting, or barytes—and that my Oil is pure, old-fashioned linseed oil and contains absolutely no foreign substance whatever.

I guarantee the freight on six gallons or over. My paint is so good that I make this wonderful fair test offer:

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every detail, you can return the remainder of your order and the two gallons will not cost you one penny.

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It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on six months' time, if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

Back of my paint stands my Eight-Year official signed, iron-clad Guarantee.

For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo. I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8-year guarantee.

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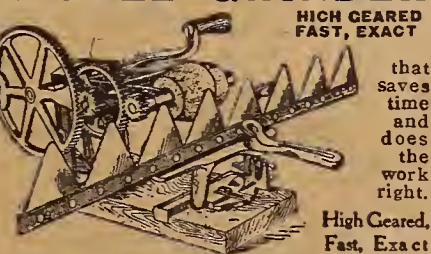


and attractive ever offered; one, a text book, "How to Paint," tells everything about painting, the other, a big complete sample book, with exact shades of every color house paint, barn paint, Chinese Gloss Lacquer, for refinishing furniture (makes old articles like new), varnishes, stains, enamels, etc., shows harmonizing color selections and our wonderfully low prices. We own our own big paint factory and sell you direct on the basis of material and labor cost one-half what you must pay all others. Our paint is guaranteed 10 years, smoothest, easiest working, covers double the surface, lasts twice as long as others, and you share in our profits.

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FAST, EXACT

that saves time and does the work right.

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Alundum wheel grinds ten times as fast as grindstone. DOES NOT DRAW TEMPER. Turns easy and takes little pressure. Simple but strong and durable. Write for booklet.

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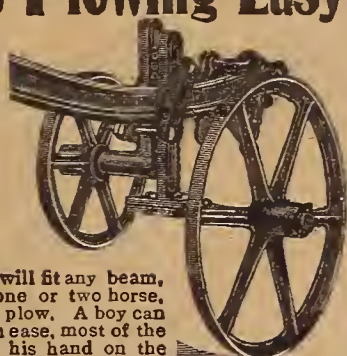
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By Using
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BEST SEED POTATOES Catalogue of 70 Varieties free. A. G. ALDRIDGE, Fisher's, Ontario Co., N. Y.

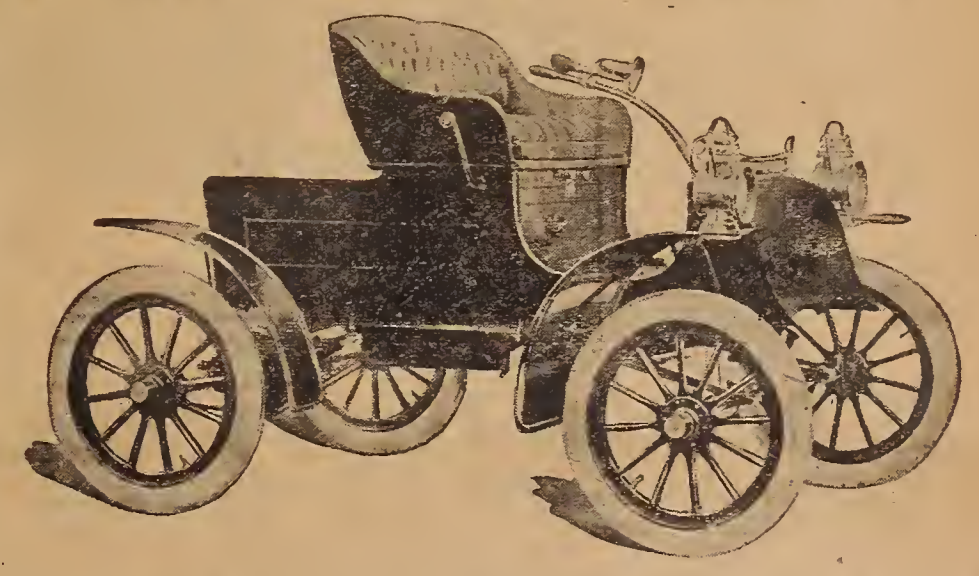
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THIS new \$650.00 Sturdy Northern Runabout is the alternative first prize to the Piano and the Pony Team in the great Contest now being conducted by FARM AND FIRESIDE. This is the first time in the history of the American Press that a farm paper has offered an Automobile as a prize, or has offered so many and such valuable prizes as FARM AND FIRESIDE is going to give its friends. You will find a detailed description of this luxurious motor car and further information with regard to the contest on page 30. We want every FARM AND FIRESIDE family represented in this greatest of all great contests, because thousands of prizes will be given away, and we want our own subscribers to get them. Is there a contestant from your family? If not, see to it to-day that some one in your family enters the contest immediately. We will save a place if you act quickly—and remember,

We Guarantee Absolutely Every Contestant A Prize

You can't lose. A postal to FARM AND FIRESIDE will bring full particulars by return mail. Address

Farm and Fireside

The Great Four-Pony Contest

SPRINGFIELD, OHIO

THIS \$750.00 PIANO

IS YOURS WITHOUT A CENT OF COST TO YOU

if you will give FARM AND FIRESIDE a little of your spare time. Or, would you rather have a Sturdy Northern \$650.00 Automobile, or a beautiful pony team, wagon and harness, or even a single pony with a complete handsome outfit? Don't you want a piano-player, a music box, a rubber-tired carriage, a gold watch, a diamond ring, a sewing machine or some other valuable and useful prize? These are but a few of the thousands of princely prizes that FARM AND FIRESIDE offers to those who will give it a few of their leisure moments. We are making the most stupendous offers ever made by a reliable publication, and they are all for **your** benefit as well as for ours. Among these thousands of prizes are hundreds that you want—hundreds that every one wants, especially since they do not cost you a cent in money and very little in time.

YOU CAN HAVE A PONY TEAM

if you want it. In fact, the \$750.00 piano, the \$650.00 automobile and the handsome pony team "Surprise" and "Beauty" are all offered as first prize and you can take your choice of them. Did you ever hear of another offer quite as liberal?

Don't Miss This Opportunity.

Probably we shall never be able to make such offers again. They are not made often—for they cost too much. This is the opportunity of a lifetime to take advantage of what is a sure gain for you.

THIS \$750.00 Upright Grand Piano is offered as first prize in this great contest. It is made by E. G. Harrington & Co., Inc., 138 Fifth Ave., New York City. It is what is known as style 12 upright. It has seven and one third octaves, three Unisons; three Pedals, including Muffler; Improved Double Action, with Brass Regulating-Screws and Metal Flanges; New, Patent, Noiseless Pedal-Action; Compound, Quartered, Rock-Maple, Tuning Pin-Block which cannot split; Beautiful, Carved, Oval, Paneled, Long Swinging Automatic Desk, with two rich Pillars and Handsome Panel at each end; Handsome Mouldings around Key-bottom and Under Top; Triple Trusses of Graceful Design; Oval Bottom Panel; Continuous Hinges; Ivory Keys; Ebony Sharps; Iron Frame; Metal Top-plate; Hardwood, Open Back-frame; Boston Fall-board; Highly Ornamental Details of Casings, including Mouldings on Cheeks; all Hand-work Carvings.

Dimensions:—Height, 4 feet 10 inches; Width, 5 feet 3 inches; Depth, 29 inches. Cases, Fancy Mahogany, Walnut and Oak, at the option of the first-prize winner.



This is the magnificent new \$750.00 Harrington Upright Grand Piano that is offered as First Prize in this Great Contest now being conducted by Farm and Fireside

THE \$650.00 Sturdy Northern Automobile will be sent absolutely free to the winner of the first prize if it is preferred to the piano or the pony team.

Specifications:—Body—Undivided Seat, Runabout pattern. Weight—1100 pounds. Passenger Capacity—Four. Frame—Cast Steel in one piece. Springs—Long Side with six leaves. Axles—Shelby seamless tubing. Rear Live Axles—1 3/8 inch special steel. Tires—28x3 inch. Radiator—18 tube, horizontal under footboard. Water Capacity—Three gallons. Circulation—Rotary pump, direct connected. Engine—Single Cylinder, under body. Cylinder 4 3/4 inch bore, 6 inch stroke. Normal speed, 800 r. p. m. Valves—Vertical, interchangeable and mechanically operated. Carburetor—Northern float feed. Ignition—Jump Spark. Batteries—Ten dry cells, arranged in two groups of five cells each. Transmission—Planetary type; direct drive on high speed. Speeds—Two forward and reverse. Thirty-five miles an hour. Bearings—Front Wheels ball; rear axle roller. Nickel babbitt in crank shaft bearings. Gasoline Capacity—7 1/2 gallons. Brakes—Contracting band on differential. Reverse gear can be used in emergency. Lubrication—Sight feed. Wheel Base—70 inches. Track—56 or 60 inch, optional. Color—Body and gear Northern carmine. Drive—Chain. Ratio or Drive—Direct 3-1; slow 9-1; reverse 9-1. Equipment—Two Oil Lamps, horn and tools.

These machines cost \$650.00, but are worth a lot more. You couldn't get a safer, stronger, prettier or more economical car. By letting down the rear seat it can be made into a runabout-trap that will hold four people very comfortably. One of these up-to-date runabouts will make your whole family independent of horses and trains, and the envy of all your friends.

\$5,000.00 IN PRIZES and REWARDS

Don't think for a minute that the prizes mentioned above are all that we are going to give away. They are not even a starter compared to the other prizes described in our large circular, which we will gladly send you upon request. In addition to the Piano and Automobile, we shall give away

**FOUR BEAUTIFUL BLUE-RIBBON PONIES
TWENTY-FIVE MAGNIFICENT GRAND PRIZES and
THOUSANDS OF OTHER COSTLY PRIZES**

We call them Grand Prizes, because of the thousands of prizes we shall give away they are the best and most valuable. And if you do not care for the Grand Prize you win, you can have something else **that you do want**, free of charge. Did you ever hear of such generous and such liberal offers?

This is the Greatest Prize Contest Ever Conducted by a Farm Paper

Just think, a magnificent new piano, a luxurious new automobile, Four Beautiful Ponies, Grand Prizes galore and thousands of other valuable prizes—in fact

A VALUABLE PRIZE FOR EVERY CONTESTANT

Yes, we guarantee that every single contestant will receive a valuable prize. It makes no difference whether you win a Grand Prize or not, for \$3,000.00 in prizes and rewards will be divided among those contestants alone who do **not** win a Grand Prize. You see we have provided a prize for absolutely everybody who becomes a contestant. **You can't lose.** No matter how little you do, you are sure to win some prize if you become a contestant. Doesn't this look good to you? It certainly ought to, for no paper in America has ever dared to be so generous and so liberal to its friends. Naturally, you are interested, but we haven't told you one tenth of the things we are going to give away. There is much more to learn about this Contest—much that is greatly to your advantage. **Just drop a postal to Farm and Fireside to-day** and ask about the Pony and Prize Contest. If you do this now, we will save a place for you in the Contest. We will send by return mail our big circular giving the pictures and descriptions of the prizes, and telling just how the Piano, the Automobile and the thousands of other prizes are going to be given away. Don't delay, for there is no time to lose. If you start early—**now**, no one can get ahead of you. Write to-day—and you will be a prize winner almost before you know it.

FARM AND FIRESIDE

The Great Four-Pony Contest

Springfield, Ohio

AGRICULTURAL NEWS-NOTES

North Dakota now leads in the production of spring wheat.

California stands first in barley production, and Minnesota second.

Idaho is now the third largest sheep-and-wool-producing state in the Union.

In California the acreage of asparagus is now about seven thousand. Most of the crop is used for canning.

The success which the farmers in Denmark have attained is largely due to the system of agricultural technical education in that country.

The imminent danger of using gasoline on pleasure boats where smoking is allowed would be very materially lessened by using denatured alcohol instead.

In 1906 the wool crop of the United States exceeded that of 1905 by about thirteen million pounds. The average weight of each fleece was also increased.

In 1906 Great Britain imported about three hundred thousand tons of bacon, valued at sixty-five million dollars. Of this Denmark supplied about one fourth of the amount.

The Montana wools are commanding a more ready sale than those of adjoining states, because care is taken to use as little as possible of paint or tar in marking the sheep on the range.

Concerning the enforcement of the pure-food law the Secretary of Agriculture has made the definite announcement that "among the first to be reached will be those who defy the law."

Mr. M. B. Waite, of the United States Department of Agriculture, who is an expert pear grower, recently advised pear growers of California to try top grafting the Bartlett pear on the Keifer or other blight-resisting varieties.

The Department of Agriculture is informed that the tests made at the experiment stations of New Jersey and Wisconsin have resulted in the production of tomatoes that not only have smaller seeds, but a greatly lessened number of them. A seedless tomato will be a very desirable acquisition.

The foreign demand for our agricultural products has ever been a fickle one. Happily for the producer of them, we are approaching a point, owing to the rapid increase of our manufacturing and commercial interests, when our dependence upon the exportation of our farm products will virtually cease. The rapidly increasing exports of our manufactured products is creating an equally increased home demand for our agricultural ones.

PITHY PARAGRAPHS

All the world loves an industrious farmer.

Blessed is the young man that sticketh to the farm, for his pockets shall be filled.

When you count your chickens before they are hatched be sure to leave plenty of margin.

Every farm should be supplemented with a little one-horse, home-made blacksmith shop of its own, for immediate use.

In the farmer's system of barn-yard mathematics two brooders multiplied by two brooders always equals more than four.

Begin doing good the moment you rise from your bed, and keep it up until you bump up against an opportunity, some time after breakfast, to do better.

Three things schedule for to-day: The task of finishing some things begun yesterday; beginning some that must be finished to-day, and beginning others that must be finished to-morrow.

If you feel that you must advise somebody to stay out of debt, tackle those who could not get into debt if they tried. Then you may know that your advice will be heeded.

These two cardinal rules should govern every hired hand: Work for others with the same zeal that I would work for myself; take as much care of their tools as I would of my own.

It is an easy matter to be what you really are, but when you attempt to live up to what you pretend to be you will find it ten-times more difficult than pretending to be what you are not. It is about as hard to pretend as it is to make good.

W. J. B.

How we keep American Fence Standard of the World.

Eighty per cent of all wire fence sold is American Fence. It takes fifty thousand miles of fence every month to fill the American farmers' orders for American Fence. That's enough fence to go twice around the world every month.

That makes American Fence Standard of the World and keeps it the Standard.

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That's why we have gone on making improvement after improvement in

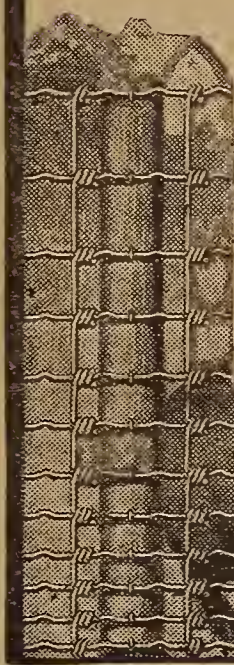
AMERICAN FENCE

making it and keeping it "Standard of the World."

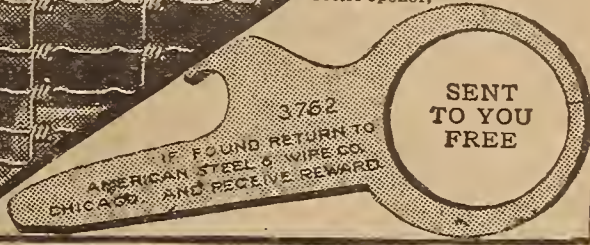
Better galvanizing makes American Fence last longer than ever—cost less per rod per year's wear.

NOTE—I want to send you the combination key-ring, shown in the corner, with our compliments, as a continual reminder of American Fence. We register your name and number on our books, and return keys, without cost, if found and sent us.

FRANK BAACKES, Vice-Pres. and Gen. Sales Agt. American Steel & Wire Co., Chicago, U. S. A.



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It requires more feed to produce 100 pounds gain on a fattening steer the second six months than it does the first, and more each month thereafter than the month previous. The advantage of early marketing is evident, but early marketing requires skillful feeding. Every function of the digestive apparatus must be kept in perfect condition. The matter of growth is a matter of digestion. Crowding is always dangerous unless certain precaution is taken to assist nature in eliminating or expelling from the system, waste and poisonous residue that is sure to be deposited under heavy feed.

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the prescription of Dr. Hess (M. D., D. V. S.) contains bitter tonics which act upon the digestive organs, strengthening and improving them so that the largest possible amount of nutrition is appropriated to building bone, muscle, milk fat, etc., and besides looking after the supply, it also takes care of the overflow—it contains the nitrates which assist nature in expelling through the pores of the skin, and in the urine, those elements that would be harmful if allowed to linger in the system. Furthermore, Dr. Hess Stock Food furnishes iron, the greatest known blood builder, and is mildly laxative, regulating the bowels during the period of dry feeding as though the animal was on pasture, and relieves the minor stock ailments. That bitter tonics, iron, nitrates of soda and potash produce the results above mentioned we refer to Professors Quittman, Winslow, Finlay Dun, and every medical writer of the age, and sell Dr. Hess Stock Food on a written guarantee.

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CATALOGUES RECEIVED

Arthur Cowee, Berlin, New York. Catalogue of gladioli.

Ford Seed Co., Ravenna, Ohio. Illustrated seed catalogue.

Cole's Seed Store, Pella, Iowa. Illustrated seed catalogue.

Iowa Seed Co., Des Moines, Iowa. Illustrated seed catalogue.

D. M. Ferry & Co., Detroit, Michigan. Illustrated seed annual.

Stark Bros., Louisiana, Missouri. Illustrated nursery catalogue.

Armour & Co., Chicago, Illinois. Illustrated Farmer's Almanac.

R. H. Shumway, Rockford, Illinois. Illustrated seed catalogue.

Iowa Seed Co., Des Moines, Iowa. Illustrated seed catalogue.

A. T. Cook, Hyde Park, New York. Illustrated seed catalogue.

W. F. Allen, Salisbury, Maryland. Illustrated nursery catalogue.

The Mason Fence Co., Leesburg, Ohio. Circular of fence building tools.

Livingston Seed Co., Columbus, Ohio. Catalogue of "True Blue Seeds."

J. M. Philips' Sons, Pittsburg, Pennsylvania. Illustrated seed catalogue.

Lewis Roesch, Fredonia, New York. Grapevine and nursery catalogue.

J. L. Loeb's Seed Co., Aberdeen, South Dakota. Illustrated seed catalogue.

J. G. Harrison & Sons, Berlin, Maryland. Illustrated nursery catalogue.

Wm. Henry Maule, Philadelphia, Pennsylvania. Illustrated seed catalogue.

L. L. May & Co., St. Paul, Minnesota. Catalogue of "Northern Grown Seeds."

J. J. H. Gregory & Son, Marblehead, Massachusetts. Illustrated seed catalogue.

C. E. Whitten's Nurseries, Bridgman, Michigan. Catalogue of strawberry plants.

W. B. Longstreth, Gratiot, Ohio. Catalogue of standard garden and flower seeds.

Empire Cream Separator Co., Bloomfield, New Jersey. Booklet, "Empire Push."

J. T. Loyett, Little Silver, New Jersey. Illustrated catalogue of hardy perennial plants.

Iowa Bird Co., Des Moines, Iowa. Pamphlet, "Parrots and Other Talking Birds."

W. Atlee Burpee & Co., Philadelphia, Pennsylvania. Annual of "Seeds That Grow."

United Factories Co., Cleveland, Ohio. Illustrated catalogues of buggies and roofing.

Geo. H. Lee Co., Omaha, Nebraska. Illustrated catalogue of incubators and brooders.

American Fork & Hoe Co., Cleveland, Ohio. Illustrated pamphlet on tools and their uses.

W. Atlee Burpee & Co., Philadelphia, Pennsylvania. Set of twelve picture post-cards.

Model Poultry Co., Buffalo, New York. Illustrated prospectus of the Model Poultry Company.

Fairbanks, Morse & Co., Chicago, Illinois. Illustrated catalogue of oil, gas and alcohol engines.

Reliable Incubator & Brooder Co., Quincy, Illinois. Illustrated catalogue of poultry supplies.

Northrup, King & Co., Minneapolis, Minnesota. Illustrated catalogue of "Sterling Seeds."

Miller Saw-Trimmer Co., Milwaukee, Wisconsin. Illustrated gage, saw and trimmer catalogue.

The M. M. Johnson Co., Clay Center, Nebraska. Illustrated incubator and brooder catalogue.

M. Crawford Co., Cuyahoga Falls, Ohio. Catalogue of strawberry plants and gladiolus bulbs.

Griffith & Turner Co., Baltimore, Maryland. Illustrated catalogue of farm and garden supplies.

Smith Mfg. Co., Chicago, Illinois. Pamphlet, "Practical Experience with Barn-Yard Manures."

Pinkerton Mfg. Co., Lincoln, Nebraska. Illustrated catalogue of "Queen" Incubators and Brooders.

Gould's Mfg. Co., Seneca Falls, New York. "How to Spray, When to Spray and What Sprayer to Use."

O. E. Thompson & Sons, Ypsilanti, Michigan. Illustrated catalogue of grass seeders, root and vegetable cutters.

Cyphers Incubator Co., Buffalo, New York. Illustrated catalogue of incubators, brooders and poultry supplies.

The Seabury Live Stock Spraying Machine & Mfg. Co., Denver, Colorado. Illustrated catalogue of the Seabury spraying machine for the treatment of live stock for external diseases.



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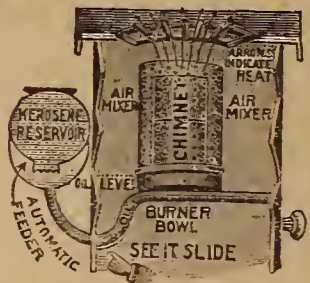
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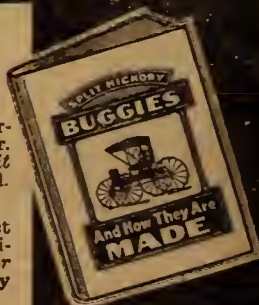
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AN ILLUSTRATED FARM AND FAMILY JOURNAL

EASTERN EDITION

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OAK HILL, in Loudoun County, Virginia, lying in the Piedmont region of the Blue Ridge, was the property of James Monroe. In 1817 to 1820, when he was president of the United States, he erected a mansion in the prevailing Jeffersonian style of the period, with heavy native brickwork comprising both the exterior walls and the partitions, with spacious rooms of high ceilings, and a great portico with high Doric columns commanding a view of the distant mountains and the sweeping intervals. This great country seat became a meeting place for many of the notable persons of the time. Here Lafayette visited in his last trip to the new republic, and hither he sent a French gaming table to add to the rich furnishings of the mansion.

But James Monroe was not a great farmer nor a good business man. To the best of our knowledge, the estate did not pay. It was a general farm raising grain and live stock after the manner of the time; and after the habit of the Virginian, also, the plantation was entrusted largely to an overseer, who had the hiring of the help and the determining of the agricultural practise. In contrast to this, the New-Englander was his own overseer, and directed his farm practise in person.

The great estate of Oak Hill, comprising eleven hundred acres of as beautiful land as can be found in that wonderfully beautiful country, came into the possession of his son-in-law. His second daughter married Samuel L. Gouverneur, a native of New York, and President Monroe's private secretary. Mr. Gouverneur was a man of means, and he loaned money to Mr. Monroe and took a mortgage on Oak Hill; and in this way he came into possession of the property. In 1852 Colonel John W. Fairfax, descendant of a prominent colonial family of Maryland and Virginia, purchased the estate, then about eight hundred acres, from Mr. Gouverneur. He resided on the place and managed it after the fashion of the gentleman farmer of that day and region. Owing to the changed conditions brought about by the Civil War, Colonel Fairfax found it necessary to sell, and in 1870 the property was purchased by Dr. George A. Quinby, of New York. Doctor Quinby introduced dairying and other innovations and made the farm turn a profit. He erected many detached buildings, after the farm fashion of the day. His herds attracted much attention in the region.

In the meantime the oldest son of the Fairfax family had graduated from the Virginia Military Institute with the intention of becoming a civil engineer. The

The Renewing of an Old Estate

By Dr. L. H. Bailey, Dean of the New York State College of Agriculture

old estate, on which he had been reared, had passed out of the possession of the family. On his graduation he was confronted with the necessity of making his own way without material aid. His father gave him one hundred and twenty-five dollars, and young Henry Fairfax went into the world. From that day to this he has never had any help from any relative, and has never asked for recommendations or for endorsement on any note. He found employment as chairman in an engineering corps on a railroad in Pennsylvania at forty-five dollars a month. He rose to high positions on railroads as civil engineer, and then became contractor on his own account. His contracting work was successful.

The old estate at Oak Hill was always in his mind, however, and he longed to possess it. Finally, while he was still a young man, the opportunity came. In 1885 the place was for sale. Arriving one morning, he closed the bargain, and left in the afternoon, being the possessor of

his contracting work, making the farm his headquarters and continuing the dairy business, under an overseer, much as it was conducted by his predecessor. The business paid from the first; but it was not until he took up his permanent and continued residence at Oak Hill and devoted all his time to farming that Henry Fairfax began to develop the farm business that now marks him as one of the great farmers of the country. This business is now profitable and satisfactory, the domain has been extended to fifteen hundred and twenty acres, the old mansion has been modernized, but all the historic associations have been conserved. When President Monroe built the mansion, Oak Hill was central, for it is on the pike; now it is nine miles from a railroad station, and, as we measure communities, it is isolated. But no farm home is isolated if it combines within itself the necessities and comforts, if it is well located with reference to the business of which it is a part, and if its occupants

tractive and satisfying to man and wife. Mr. Fairfax has found time to serve his fellows. For eleven years he represented his district in the state senate; he was a member of the last constitutional convention; he was a member of the state corporations commission until he resigned to devote himself wholly to the more agreeable work of his farm. Here is the life of the country gentleman of the best type, supported directly from the land through personal effort; and now the reader is anxious to know how this is done.

Mr. Fairfax's business is the raising of hackney horses. He is not a speculator in horses. He does not buy and sell. He is a farmer, founding his crop system on the English grass-farming lines, raising his feed; he breeds his horses, rears them, breaks them, and sells them to the legitimate trade for what they are worth.

Mr. Fairfax had had no experience in the breeding of horses; but in England he had seen the usefulness of the well-bred heavy coach horse, and he had noted its rising popularity in this country. He thought the demand for this type of animal would steadily increase. He became convinced, also, that the best driving horses must be reared out of doors, and to this purpose his Virginia plantation seemed to be excellently adapted. The sequel has shown that his judgment was sound.

He imported a famous sire from England, Matchless of Londesborough 1517. This animal was purchased in 1888 from a breeder in Yorkshire. Mr. Fairfax sold the animal in 1892 for fifteen thousand dollars; and when twenty-one years old the horse was sold back to England. It is from this horse that the design was made for the hackney-horse scarf pins that are now popular.

Matchless of Londesborough gave Mr. Fairfax his start. He breeds on native-bred and pure-bred hackney mares, breeding to produce both harness horses and breeders. He also breeds a few prize saddle horses; and I noticed a thoroughbred stallion, but he has not yet taken up trotting stock actively. The harness horses, when broken, bring an average price of six hundred dollars. The breeders go much higher, Fiery Dane having sold for ten thousand dollars. He now has some very fine mares from his present horse, a son of Matchless of Londesborough; and he is contemplating a trip to England to secure a stud for these mares.

Some eighteen or twenty colts are produced each year from two stallions. The colts are broken at four years, and sold at four and five years. There are eighteen



OAK HILL—SEAT OF HENRY FAIRFAX—BUILT BY PRESIDENT MONROE

an estate on which he was able to pay ten thousand dollars, and on which he placed a mortgage for the remaining fifty-three thousand dollars of the purchase price. For some years he continued

have the satisfied heart. The mansion at Oak Hill has all the physical comforts of the city home—gas, steam heat, water supplies, telephone, substantial elegance in furniture and furnishings. The life is at-



YOUNG HACKNEYS AT PASTURE ON THE OAK HILL ESTATE

head of work horses on the place, and five or six driving horses. Aside from this, Mr. Fairfax does a large boarding business of a unique kind. He takes brood mares and colts from city and suburban breeders who have not the acreage nor the natural advantages, and carries them till breaking time at a flat rate per head. He is able to handle these horses at one fourth the cost of stabling or pasturing near the cities, and he also develops a better animal. There is a total horse stock on the place of two hundred and twenty to two hundred and thirty head. There are also about sixty ewes and sixty cattle. When the horse stock is low, he buys cattle from Tennessee or elsewhere and feeds them; these animals will often run as high as eighty to one hundred.

The special advantage of Mr. Fairfax's horse breeding is the naturalness and nativeness of it. He lets his horses run to pasture the year round. Only in the winter months does he practise any feeding of the colts, and then but twice a day. Unless the weather is very severe, the colts are turned loose after feeding, and off they go in droves. It was the shortest day in the year when I visited Oak Hill, but all the stalls were empty of young stock. I rode through great fields with stake-and-rider fences, "horse high," each one containing a drove of twenty to thirty colts. As you enter the field, they round up in a bunch facing you, with ears alert, and then of a sudden turn and gallop pell-mell down the pasture with a roar like a train of cars; and at the farther corner they bring up again, stare in your direction for a moment, and then perhaps plunge off again in a wild stampede.

"The country is the place to bring up horses," Mr. Fairfax remarked, "just as it is the place to bring up boys. In the city the horses have too much done for them. When they are sent here they don't know anything. They don't even know enough to go to a trough to drink, and then they don't develop naturally. No matter how well they are bred, they become narrow chested and slack in depth of body, giving them a long headed and leggy appearance if they are raised in stables. Every day in the year, if possible, a horse should get a bite of grass that grows out of the ground. When these horses are broken they have too much sense to be afraid of cars or automobiles. Yes," he reflected, pointing to a bunch of colts plunging over the sward, "these hills and fields are the place for colts and boys; it puts the bone in them."

This method of rearing horses reduces feed bills and labor bills to the lowest terms. Little feed is purchased for the horses, except perhaps for the brood mares and stallions. The wheat crop is sold, and bran, and sometimes oats, supplied for feeding. Aside from the central establishment, there are two divisions of the farm—one to the north and one to the south—each with its barns and its houses for help. The barns are simple and inexpensive, but constructed to economize labor. One man cares for about forty acres. At the central barns most of the breeding stock is kept, and here the breaking is done. There is an English stud groom, also an English trainer and two helpers, all with residences on the place. The miscellaneous help is drawn from the neighborhood; and although labor is scarce here, as elsewhere, Mr. Fairfax has no special difficulty in securing what he wants, for he offers steady employment, provides good quarters for sleeping and for meals, and pays good wages for the region.

These Fairfax horses have reputation in the market and at the shows. Mr. Fairfax has taken more prizes for horses in the heavy-harness class than any two or three other breeders in this country. He has shown mostly in New York and Philadelphia, but of late years he has not exhibited so much as formerly, as he does not need to do so. His stock now sells to all parts of the country, even to California. Horsemen will recall the international competition at Madison Square Garden in the past nine years for the permanent ownership of the Waldorf Cup, won last year for the third time by Judge Wm. Moore's Forest King, a grandson of Matchless of Londesborough. For two years out of the three that the prize was offered, Mr. Fairfax won the W. D. Grand American Horse Exchange Prize for the six horses (hackneys or half breeds in harness or saddle) bringing the highest average price. The first year his average price was seven hundred and sixty-six dollars; second year, eight hundred and sixty-two dollars. Auction sales of his horses in former years have averaged as high as nine hundred and eleven hundred dollars in New York. Mr. Fairfax offers the Aldie Cup to be competed for during two years by the same breeder with hackneys in harness exceeding fifteen hands high. The first winning of the cup was by a horse of his own original breeding.

It goes without saying that Mr. Fairfax has come to be an expert judge of hackneys. His services are always in demand at the shows. At this writing he is in receipt of a cablegram asking him to be a judge at the International Horse Show in London.

This horse-breeding enterprise rests on an effective crop-farming system. The foundation of the business is grass. It is a blue-grass country. The pastures, therefore, are excellent. It is a very different matter pasturing horses from pasturing cattle. The horses run so much that they tear up the sod. As they have incisor teeth on both jaws, they can bite the grass very close. A pasture that will stand three cattle will not stand more than two young horses. The horses are pastured in bunches or small droves, and some of the pastures are always at rest.

Of the fifteen hundred and twenty acres, practically all are subject to the plow sooner or later. At present about two hundred and seventy-five acres are actually under the plow. About half of this is in Indian corn. Some is in wheat. Some is in oats. The land is generally seeded with the wheat. The seed for an acre for hay is about one peck of timothy and five to eight pounds of redtop; and for pasture one and one half bushels of orchard grass and one bushel of blue grass. Clover is added in the spring for both meadow and pasture. Cow peas are often sown in the corn stubble, and mowed for hay, or plowed down in the fall for wheat; thirty to forty acres were thus treated this year. About two hundred acres are now mown, averaging one and one half tons to the acre. This produces all the hay required for the establishment. Mr. Fairfax thinks that his meadow is too large. He proposes to secure the same yield from a less acreage. He has not tried alfalfa, and has no mind to do so, for alfalfa does not work well into a pasturing scheme in his section.

Aside from these crops, there are thirty-five acres of apples, mostly Pippins, in full bearing, well sprayed and well handled. It is the country of the famous Albemarle Pippin.

The spirit of the Nature lover runs in such a business as this. I saw Mr. Fairfax's pride in the clean-sweeping fields, in the streams, and in the rolling lands that ran up into the brown Virginia woods. It is a satisfaction to know that such a business may be thoroughly profitable on the financial side, also. This is no fancy farming. It is a plain business, but all the more satisfactory because it is

once be thrown over the top of the hive. When a frame is to be removed from the hive, the quilt is to be rolled back a little, and allowed to cover the frames again as soon as convenient. This quilt prevents the escape of the heat from the brood nest. But how with the first frame removed? Well, in early spring no brood will be in the outside frames. After one frame has been removed from a hive there is room enough for manipulations, and the others should be returned as soon as possible after they have been examined.

If there is no brood nor any eggs about a week after the hive in consideration has been set from the cellar, one can be quite positive that there is no queen in that hive—or there may be a worthless one in it. A queenless colony should be united with a queen-right one by smoking both colonies well and then shaking the queenless bees in front of the hive of the queen-right colony; or several frames containing the most honey and bees of the queenless colony can be set right into the hive with which it is to be united, after having first removed an equivalent number of frames—those containing the least honey—from this hive.

Eggs and brood are a sure indication of the presence of a queen—unless she has in some way been killed but a short time before—even if the apiarist cannot find her.

If some colonies have not about ten pounds of stores, the deficiency should be supplied in the shape of filled combs taken from some colony that has more than it needs, or saved from the previous season.

It is not good to feed bees any liquid sweet in early spring, for it induces them to fly out of the hives when the weather is so cold that many will be chilled. If, however, bees are short of stores, and the apiarist has no frames of honey to give them as suggested, feeding sugar sirup is much to be preferred to letting them starve. The sirup should be made quite thin—about equal parts of sugar and water—or even thinner, and fed from division-board feeders. The feed should always be given toward evening, so the bees will have quieted down by the next morning.

F. A. STROHSCHNE.

HOW FARMERS CAN GET AND KEEP GOOD HELP

A farm hand in Ohio writes a long letter setting forth several reasons why farmers cannot obtain and keep a better class of help on the farm. The examples he gives are not very flattering to the farmers.



ENTRANCE CONTRACTOR FOR PREVENTING THE ESCAPE OF HEAT FROM THE HIVES IN THE SPRING

plain. This is an old estate. It has had an unusual history. I suppose it was never on such a paying basis as now.

SPRING BEE NOTES

The first warm day after the bees have been set from the cellar all colonies should be examined to ascertain the amount of stores present and whether any are queenless.

When one knows the approximate weight of an empty hive and the combs of same he can tell by the weight of some hives, when carrying them from the cellar, that they contain plenty of stores to last the bees till fruits bloom. Such hives need not be opened unless there is reason to suppose them queenless.

When a hive is opened, the heat of the brood nest escapes readily if the day is chilly, and this may result in chilled brood. It is for this reason that I said that hives should be opened the first "warm" day after being set from the cellar. If a "warm" day does not come, and one suspects some of the colonies short of stores, they must, of course, be examined.

To prevent, as much as possible, chilling of the immature brood when a hive is opened during a cold day, a quilt made of several thicknesses of cloth should at

Close-fisted contracts and unfair treatment appear to be the chief causes of dissatisfaction among the hands. This man thinks farmers should treat their men as their equals.

I worked as a farm hand a good many years, and met with tolerably fair treatment from my employers, but I never had quite sufficient gall to ask one of them to treat me as a partner or as a member of the family. I became quite "stuck" on some of the pretty daughters, and often wished I had sufficient wealth to make me a suitable applicant for a position as son-in-law, but as that condition seemed rather remote I had to content myself with their smiles and thanks for little favors done, and their expressed opinion that I was a nice, accommodating man.

At a few places I soon discovered that my employer and his family were bent on getting all the work possible out of me without according any courtesy or accommodation in return. When this discovery was made I usually called a conference and came to a definite understanding as to my duties and exact status. I learned that the right way to make a contract with an employer was to draw it up in writing, and giving either a right to terminate it if sufficient cause were given, then to do a little more than the contract called for.

When I first started in as a farm hand an old fellow said: "Always try to stand in with the women folks, and don't be familiar with the children. Little chores and odd jobs you can do for the ladies will insure you a warm corner by the stove, and any extra mud you bring in won't be noticed. Let 'em know that they can stay away all day, or two days, if they want to, just so they leave you enough to eat where you can find it. A few cold meals don't hurt a fellow." I found the old man's advice was good.

There are a great many farmers who seem to think a hired man is merely a machine, and they rush him for all he can stand, and his rank in the family is usually a little lower than that of the dog. These are the kinds of farmers who have driven the best class of farm help off the farms, and now have to content themselves with men that are not much better than cattle. There is no reason why clean, intelligent young men should avoid the farm when seeking employment, except the farmers above mentioned. In the cities laborers work a definite number of hours, then stop. And the rest of the day is their own. On the farm the usual hours of labor are from dawn to dark. Then there are chores innumerable morning, noon and night, with some extra on Sunday. The reason for this is the methods of conducting the business.

The farmer must get his management onto a business basis. He will have to accord his help the same rights and privileges that is accorded labor in the cities, or do his own work. Of course he will contend that he cannot do it. But he is face to face with the fact that he will have to. A day will be a given number of hours. When the time is up the men will stop or be paid extra. This is coming, and the farmer may as well begin to trim his sails accordingly. The farmer will have to be fair to his help, and the help will have to stand to a legal contract for a given number of hours of work.

FRED GRUNDY.

FEEDING THE FARM

I have recently been experiencing a feeling of regret, when load after load of fine straw, clover and timothy hay, and corn, sometimes with the stover, has been hauled past my house to the markets; and I have frequently been tempted to ask what manner of farmers were these, who were practically hauling away the principle and interest of the farm bank, and handing it out to others? It has always been my practise to feed out everything available to live stock, and the better feed the stock has—no matter what kind of live stock—the better the manure is, the more it contains of the great elements of plant growth. One of the most important elements is nitrogen, and most farms are sadly deficient in this. The excrement of well-fed—especially grain-fed—farm animals is rich in nitrogen, and farmers may be sure they will not have too great a supply. It is well to bear in mind, also, that farm manures are proportionately richer in nitrogen than either phosphoric acid or potash, both of which are as essential to plant growth as nitrogen. The winter's manure will be applied to our grain fields, either from the heap in early spring or from day to day, according to our judgment, and the requirements of each crop should be borne in mind. Corn requires more potash—vastly more—with its great growth of stalks, leaves and ears, than does the oat crop. We give the oat crop a somewhat larger allowance of phosphoric acid than potash, yet there must be a sufficient amount to render the straw stiff enough to hold up the grain until well ripened. Until I understood this matter by frequent experiments I believed the farm manure contained a sufficient amount of all elements for the farm crops. We all know better now, and the wise farmer makes a separate application of the minerals, which may be obtained of all dealers and manufacturers.

E. A. SEASON.

PITHY PARAGRAPHS

A sharp farmer works with sharp tools.

Stick to your job and it shall be finished.

Blessed is the farmer who doth not doze nor bulldoze.

When you hit the nail on the head be sure it is the right nail.

Be willing to take things as they come, whether they come your way or not.

Do not spend your hard-earned money—simply buy what you need, and quit.

The man who sets a bad example always condemns other people for following it.

The road that leads to success runs through every farm. Young man, stay on it.

W. J. B.



Little Bright Eyes

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Orchard Culture and Profits

IN LARGE sections of the country the tree fruits are, and will remain, the main dependence for the money income from many farms. At the same time there is hardly an owner of a rural or suburban homestead, no matter how unpretentious, or limited in area, who is not also interested in the welfare of at least a few trees which furnish him fruits for his table or for sale. For that reason the so-called "horticultural" societies in the leading fruit-producing states of the Union are really "pomological" rather than horticultural organizations.

The New York State Fruit Growers' Association, which met in Penn Yan in January, makes no pretensions of representing any but fruit interests, but even at the meetings of the Western New York Horticultural Society any subject save those touching directly on fruits and fruit growing will find only passing or incidental consideration.

The fruit business of the country is a vast interest, especially in my own country, but it has not yet reached its pinnacle of development, especially in the proper utilization of the product or in the management that will lead to the largest possible financial returns.

Nor can there be any suspicion that the home planting in this line is in danger of being overdone. Far too many farms, rural and suburban homes are yet without the full supply and the full variety of fruits that they have the opportunity to produce. People have still to be urged to "plant more trees" and "eat more fruit"—and the interest in planting and caring for trees and small fruits, and the demand for more information about these things, are bound to continue to grow.

PROFIT IN PEACHES

The peach is not only one of our most palatable tree fruits, but also a reliable cropper over a wider range of territory in the states than almost any other fruit. It thrives South, and with wise selection of hardy varieties and on the right soil will also come to perfection in the Northern states, with the exception of their coldest portions. It is such a good fruit that the demand for the better grades is always large, and prices usually high enough to insure a good margin of profit to the grower. It is a fruit that deserves increased attention of every home grower who lives in a locality where peaches can be grown. Many farmers and home owners in the Northern states are not aware of their opportunities in this respect.

Dr. J. H. Funk, pomologist of the state of Pennsylvania, furnished a noteworthy paper on peach culture which was read at the recent horticultural meeting at Rochester, New York. As first essentials of success Doctor Funk names a warm, fertile soil, not too rich in nitrogen, but having a sufficiency of phosphoric acid and potash, and a good northern or northwestern slope. A good stiff sod, or a green crop plowed under before planting, will furnish all the humus that may be needed; but stable manure is not wanted.

The trees are set twenty feet apart each way, and trimmed low, with an open, spreading top, so that all the fruit can be gathered with a three or four-foot step ladder. In order to cultivate the ground under the low branches, the two sections of a harrow are spread apart by means of an iron rod. This latter is removed and the harrow used in its original shape for tilling the strip in the center between each two rows. The first season after the trees (one year from the bud) are set out, potatoes may be planted in the orchard.

A thousand pounds of some good complete fertilizer are applied before planting, and every year after. When the first potato crop has been harvested, two bushels of cow peas are sowed to the acre, and this crop is plowed under the following spring.

One of the chief points that should be observed is the selection of the right varieties. Doctor Funk recommends the hardiest sorts of the North China cling type, and especially names the following as hardiest and of greatest commercial value, namely: Snead, for first early, prolific; Victor, slightly later, a good bearer of medium-size, well-colored, sub-acid, semi-cling; Greensboro, medium to large, with tender skin, semi-cling; Wadell, very prolific, creamy white, juicy, semi-cling; Carman, one of the most prolific, creamy white, skin firm, semi-free, annual bearer, one of the best; Champion, always large, of high quality and best for canning, slightly adhering; Belle of Georgia, prolific, melting, juicy, never failing; Fitzgerald, of high quality; Early Belle, first early freestone, when fully ripe one of the best peaches in existence, regular but not prolific bearer; Captain Ede, a heavy bearer, and favorite

for home use, fine for canning and eating out of hand; Elberta, the well-known popular peach; Mathew's Beauty, size of goose egg and of good quality; Fox Seedling, beautiful, melting and sweet. As hardiest of these Doctor Funk recommends Greensboro, Carman, Champion, Captain Ede and Belle of Georgia.

WOOD ASHES FOR FRUITS

Much has been said and written on the value of wood ashes as a fertilizer for various crops, but especially fruits. "Potash paints peaches" has often been quoted.

At the Geneva station the value of this fertilizing material for apple trees has been put to a thorough test during the past twelve years. An apple orchard on strong clay loam has been given annual applications of wood ashes without showing much of any results for the first six years, and giving only a very slight increase of crop during the next six years. It is assumed that the clay loam at Geneva contains all the potash which the trees may need, anyway, and that the application of ashes therefore is superfluous.

Ashes, however, also contain a small percentage of phosphoric acid, which often contributes to the fine results so often obtained as a result of applications of wood ashes. Are the Geneva soils also abundantly supplied with this element of plant foods?

In many instances wood ashes have given good, and even striking, results not only on tree, but also on bush fruits, and I invariably use all the ashes of any kind—whether wood or coal—on my small-fruit patches on general principles. Heavy applications of coal ashes, containing probably some wood ashes from kindlings, or from burning wood in the cook stove during summer, have given me immense crops of Columbus and other goose-

ordinary prices. I could not think of any fruit or other crop that people in this section might plant with greater assurance of a handsome annual income (after the trees have once reached bearing age, say eight or ten years) than this pear. Neither is there any great knowledge or skill required for its production.

Yet even the Bartlett does not succeed everywhere and in all sections. California has sent very handsome Bartlett pears to Eastern markets right along, all nicely wrapped in tissue paper and attractively packed. But there is trouble somewhere, and the Eastern grower will not suffer from the Pacific Coast competition much longer. In the Southern states the Bartlett does not do so well, either, and the growers there must depend more largely on Keiffer, Le Conte, etc. In New Jersey, etc., the San Jose scale seems to check the successful production of this pear, also. In short, there are local limitations to Bartlett pear culture, and the question whether it be advisable to plant more Bartletts cannot be answered affirmatively except conditionally.

For this locality, and any other that seems to be so well adapted naturally to this fruit, I say by all means plant Bartletts, either as a money crop or as a crop for the home grower. It is one of the fruits that should be found on the grounds of every farmer or owner of a suburban or rural home. I would have a tree in the fence corner if I had no other place for it, keeping the ground underneath it well mulched with ashes, litter or waste of any kind sufficiently deep to choke out weeds. But if your locality, soil or market conditions are not favorable for Bartlett growing, there may be other fruits or other crops more promising as money crops.

CULTIVATION OR MULCH?

Most of our leading orchardists—those who are business or professional fruit growers—believe in the efficacy of clean cultivation. Their orchards are mostly

especially high-colored ones. For it is established as a fact that apples from trees in sod usually show higher color and better keeping quality than apples from trees kept in a high state of cultivation. But it is also established that more apples and larger ones come from the cultivated orchards than from those in sod.

Fairly favorable results, however, are obtained from sod orchards that are pastured with sheep or hogs, provided these animals are not made to depend for a living altogether on what they find in the orchard, but are given liberal grain rations. This pasturing method is perhaps just the one that can be recommended to the average farmer who has an orchard as a side issue, and neither the time nor inclination to give it clean or "intensive" culture.

While this is all right for apple trees, however, only "the real simon-pure," thorough and clean tillage will do for peaches, plums and pears when best results are desired.

T. GREINER.

THE GREED FOR LAND

THE LITTLE FARM WELL TILLED

If there is any one thing except intemperance which causes more sorrow, more prematurely aged and broken-down women than the present-day greed for more land, then I should like to be told what it is.

I wish we could have a law passed to prevent any man from acquiring more than forty acres of good farm land. It would make untold thousands of farmers' wives happier and bring cheer into lives that are now one monotonous round of toil from the beginning of the year until its close, and only when the Great Reaper gathers his harvest does there come rest. Few of the black slaves in the old days of bondage were compelled to work as hard as does the wife of many a farmer who takes pride in his broad acres, and covets more.

Why should a man toil all his life and condemn his wife to an endless round of labor just to add acre to acre, once he possesses enough land to support him in comfort? Does he expect to acquire enough so that he may cease to labor and live in luxurious idleness? Will he be able to enjoy it if he succeeds? He will be too old to change habits of a lifetime, almost, and will continue to add "just a little more." What is the use? We require but very little at the end—a matter of six feet and some inches at the most.

Forty acres are enough for a strong young man to work if he makes it produce as it ought to. Half that amount is too much for an old man. The man who has good health and cannot make a living, and more, from forty acres of good soil cannot expect to make a larger farm pay.

The little farm well tilled, with the buildings and fences in good repair, and stock well taken care of, is a thing to covet and to take pride in—something the owner will want to make a little better each year. One can get real satisfaction out of such a place, and not work like a slave all the year. There is less work on the farm and less in the house, time to read, to think, to enjoy life to the full. What are we here for? Just to accumulate riches? That life is very narrow indeed which works to such an end.

We are here to be happy, to make others happy, and to enjoy and make more beautiful our little part of this big world. What satisfaction can be gotten out of a big, weedy, neglected farm that demands a continual grind and yet never produces anything like a full crop? I want a farm so small that I can get acquainted with each acre of it, and make it produce more and better crops every year, and yet have time to get acquainted with people, to read, think and improve my mind as well as my farm, to go on a trip now and then to see other parts of the country and what other men are doing. That, I think, is making farming worth while.

Michigan.

APOLLO S. LONG.



A COZY HOME IN MICHIGAN

berries. I am not going to let my ashes go to waste simply because the Geneva Experiment Station reports so meager results from the application of wood ashes to apple trees in their particular case, yet I would hesitate to pay the price often asked for commercial, but inferior so-called "unleached" wood ashes.

PROFIT IN PEARS

At the state fruit growers' meeting at Penn Yan one of the questions discussed was: "Is it advisable to set Bartlett pears?"

In reply to it, Mr. Albert Wood, one of the best-known and most-skilled orchardists of this region said that the Bartlett is the money maker, especially when held in chemical storage until there is a chance to sell it when demand and prices are good. It can be, and has been, sent to China, Japan, the Philippines, etc. Mr. Willard also states that California is going out of the Bartlett pear business. In most localities of this county the Bartlett is a fruit that under even moderately fair treatment seldom, if ever, fails to yield a paying crop, often bringing to the grower five hundred dollars an acre when sold directly to the canneries at

planted on land worth seventy-five dollars or more an acre, and this land is easily tillable and in good heart.

The advocates of the mulch system in many cases have had to plant their trees on land that is rocky, hard to till, and in many cases worth only a nominal sum. Mulching may be the best way in some cases, but where litter has considerable commercial value, as is usually the case where land is high, it is out of the question, unless the mulch is grown right on the spot.

A mulch heavy enough to choke out all growth under the trees requires a lot of litter. One orchardist told at the Penn Yan meeting of having grown a most magnificent crop of Kings in an orchard the ground of which was covered two feet deep with litter. Mr. Hitchings replied that it is not necessary to haul so much stuff to the orchard. After the soil has once become filled with humus it is easily kept in good order with very little application. Sow clover and blue grass—that is all there is to it.

Many farmers pay very little attention to their apple orchards. They leave them in sod and take off an annual crop of hay, and let it go at that. And often they have very nice crops of apples, and

Many of our people will be interested in knowing how valuable the space in FARM AND FIRESIDE is. An advertiser pays us \$2.00 a line every time his advertisement is inserted. Now, don't you think he has lots of faith in his wares to spend so much money telling you about them? They must be honest goods at reasonable prices or they could not afford to advertise them so much, even though his advertisement does go into 415,000 homes, and is read by nearly 2,000,000 people. We guarantee that you will receive fair and just treatment from any firm you write to if you mention seeing their advertisement in FARM AND FIRESIDE.

PREPARING LAND AND PLANTING POTATOES

Some Suggestive Missouri Methods

PROPER preparation of land for potatoes begins in autumn with an application of stable manure and breaking of the land. If that has been neglected, a very good crop may be raised by spring breaking. In fact, about the finest potatoes I ever raised was in 1906, on spring breaking, writes A. B. Thomas, of Missouri.

It was clover and timothy sod, carefully turned, about seven inches deep early in March, then dragged and disked over and over again until perfectly fine and mellow. At this point is where most failures are made. They think they are ready when really about half done.

Soil composition cuts somewhat of a figure also as regards preparation and kind of tools used. My soil is loam and clay with a plentiful mixture of gravel, but withal clay enough to bake and practically ruin a crop if stirred too wet. The drag should be used very sparingly, if at all, when such land is the least bit heavy. The disk is my standby, and while I always desire to plant reasonably, my advice to any one tempted to go on the land while wet is—don't!

PLANTING POTATOES

Then in laying off, I have not advanced to the potato planter yet. I want to use a plow that will throw out a clear, open furrow, the bottom of which is at least three inches below the surrounding surface, and that looks pretty deep, with the soil thrown out by the plow lying at each side.

This deep laying off serves a double purpose, especially for early planting, by getting the seed down beyond reach of a possible frost, and also out of the way of the drag, which I will mention later. Then plant a piece of seed about every eighteen inches in the row, and cover with a furrow from a small turning plow from each side. This looks like an immense amount of work just for planting, but it will work out all right both in yield and ease of after cultivation.

CULTIVATION

It is often next to impossible to get the soil mellow in among the vines, right where it needs loosening the worst, when packed and baked by rain and sun in shallow planting; but when planted deep and ridged on top, I can run a heavy drag over the ridges, straddling each ridge with the tram. This is done just before the potatoes come up.

Now about applying manure, I find it risky to use fresh manure in spring, on account of scab, but if same is applied either on plowed or unplowed land in the fall it seems all right, and much more is lost for want of manuring than for excess of it, I think.—New England Homestead.

CATALPA SEEDS

How to Distinguish the Varieties

A large number of catalpa seedlings are grown for timber plantations, and as speciosa is considered the best variety, it is important that planters should be able to distinguish the seeds of this from others. By examining the seeds I send you it will be observed that seeds of speciosa are much larger in every way than either of the other sorts, and also that the hairy ends of the twigs are spread out, fan-shaped, while those of bignonioides are more drawn to a point. C. Teas' Japanese hybrid, which is a cross between speciosa and kempferi, has seeds much smaller than either of the two varieties mentioned above, but produces trees of great size, and probably possesses merit as a timber tree. Owing to its recent introduction, its value in this regard has not yet been determined.

The seeds of kempferi are very much smaller than either of the others, and the tree is not as rapid in growth as either speciosa or Teas' Japanese hybrid, though I know of one grove of about four thousand trees, twenty-two years planted, of this variety that now contains many trees about ten inches in diameter, from which fence posts have been cut the last few years. This grove is highly valued by the owner.

Catalpa bignonioides, although the earliest introduced into cultivation, is believed to be least valuable of any, on account of its crooked, irregular habit, as well as slow growth. Mature trees of speciosa and bignonioides may be distinguished by the outer bark. Speciosa has a rough, ribbed outer bark like a black walnut, while bignonioides has a smooth bark that scales off something like sycamore. Catalpa bignonioides is native on the South Atlantic coast, while speciosa is found native only in the Mississippi Valley, from southern Indiana westward into Missouri and Arkansas.

Review of the Farm Press

Catalpa seed vegetates nearly as quickly as corn. The young plants are nearly as tender as to frost as young tomatoes. Hence the seed should not be sown until danger from frost is past. We usually sow toward the end of May, or early in June, on finely pulverized, rich, light soil. If the seeds are not planted too thickly, plants will attain two to three feet the first year, ready for the timber plantation the following spring. A pound of Catalpa speciosa contains about twenty thousand seeds; a pound of kempferi, fifty thousand to sixty thousand seeds.—E. Y. Teas in the Country Gentleman.

CORN-SEED QUESTION

It is the practise of all corn breeders to discard the kernels from the tip and butt of the ear, which are irregular in size and shape, for the purpose of securing uniform kernels for planting. All the experiment-station men, so far as I know, who are breeding corn follow the same practise. For the last four years we have discarded tip and butt kernels, and I am sure that our corn is steadily improving in type, quality, and yield, and I have not observed any decrease in the length of ears. In my judgment there is nothing in the theory advanced by some farmers that discarding the tip kernels will influence the length of ears of corn in the crop grown from such seed. In any case, if it were true that taking off the tip kernels caused the ears to become shorter, it might be a good thing to practise in Kansas, since the tendency in many localities is to grow too long ears of corn at the expense of depth of grain. We are breeding to-day for an ear of medium length and medium circumference with a deep kernel and a rather large cob. Too long ears are apt to be comparatively small in circumference with short kernels, low percentage of corn to the ear, and a comparatively less yield of shelled corn to the acre than may be secured from

An Iowa authority says that the total yield of Sac and Ida counties, which comprise the popcorn belt, will reach fifteen million pounds, and if it were all popped before being shipped it would require two thousand train loads of twenty cars each.

Popcorn has the advantage of other members of the corn family, in that it always ripens before the early frost can get a chance at it, and the drought does not hurt it much.

The job of picking and husking is not a pleasant one, owing to sharpness of the grain ends, but expert pickers can make three dollars a day at the usual rate of fifteen cents a hundred pounds.

The discovery of the Iowa popcorn belt came about by an accident.

About twenty-five years ago an eccentric Yankee, who had located in Sac County, near Odebolt, decided to break away from the old traditions, and instead of diversifying his crops, to plant them to one thing only.

He tried wheat one year and failed to make any money.

For two years thereafter he planted all of his twenty acres to potatoes, and everybody laughed.

When a few years later he planted it all to popcorn a big shout of merriment went up, but when in the fall the Yankee marketed his entire crop at a big profit nobody even smiled.

The next year a neighbor followed his example.

Colton bought his crop in the ground, and that year he had more popcorn than any ten men in the United States.—Farm and Stock.

BASKET-WILLOW GROWING

The general idea is that willows will grow only on very swampy ground, but experience shows that all serious attempts made on well-drained soil, even though of poor quality, have been successful. The ground is prepared just the same as it would be for corn or wheat. Where the cuttings have been



LEAVES, FLOWERS AND FRUIT OF CATALPA SPECIOSA

ears of medium length, larger in circumference and with deeper kernels.

By carefully reading our bulletin No. 139 you will learn our latest views on this subject.—A. M. Ten Eyck, in Kansas Farmer.

THE POPCORN SUPPLY

Nearly half of the popcorn consumed in the United States is grown in the small county of Sac, in the northwestern portion of Iowa.

Before the shows and the street-corner merchants took it up, the hot buttered popcorn wasn't very much in demand.

Its cultivation was restricted to a few stalks on the farm that met the home demand.

A small quantity might be bought at the store, but it was high in price and the sales were few.

The breakfast-food manufacturers are now the largest consumers of popcorn in the market.

Nearly half of the ready-to-serve foods have a considerable percentage of popcorn.

The popcorn belt is invaded each spring by the agents of Chicago and New York firms, which contract with the raiser to take over his entire crop. This method of handling the harvest makes the grower an assured market, at a remunerative price, and for several years the average price has been eighty cents a hundredweight.

The average yield is about three thousand pounds to the acre, the corn requires less care and watchfulness than the Indian variety, and even on one hundred dollar land there is good profit in it—more than on wheat, corn or oats.

THE HORSE TO HELP MANKIND

In creating the wonderful Orloff horse, the late Count Orloff showed the philosophy of progression of time; he realized that the horse that was to be a help to mankind would have to go fast with heavy loads, instead of following wind shields, that he would be compelled to breast the front. In the establishment of the Orloff horse he reached the highest point of his expectations; he created a horse with beauty, combined with intelligence and kindness of disposition, which could maintain a high rate of speed at the trot, at the same time drawing a heavy load; and that was also the condition of the Morgan horse when he was in his so-called purity, though he was even less in size than the Orloff; and it is that condition in connection with the Morgan horse that the government of the United States is now desirous of producing.

The Morgan horse was not only a puller of the greatest loads, but a roadster of the greatest number of miles, combining with these qualities those of a beautiful companion who was a safe pleasure to have mingled with your family, and all of these qualities are those of the Arabian horse. I am satisfied from what I saw in the desert of Arabia during the summer of 1906 that if those desert horses had been taught to pull, they would have outpulled, possibly, any known horse, as they are built for such demonstrations of strength.

I could use, possibly, no greater authority or saner opinion than was expressed the other day by a gentleman visiting my farms, from the border of Canada. This man, a farmer, a breeder of horses and cattle of the highest type, a great believer in Morgan blood, and an owner of the same, after he had spent two days and a night at the farm, and I had bidden him good-by, supposing that he had gone home, came to me the day after in New York, and asked if he could return again to the farm; that while he had purchased a stallion of the so-called Arabians that were in America, and while he had been a visitor to every other Arabian stud in America, he could not get out of his mind the brown stallion "Haleb," which he had seen at my farms, and of which he expressed the opinion that he was "the savior of the Morgan horse," and he wanted to go again and spend another day; whereupon, with more than pleasure, I extended the invitation. He believed, he said, that "if that horse was taught to pull, he could outpull any horse in the world, regardless of weight or size."—Homer Davenport in Live Stock Journal.

DRAINING A SPRINGY SWALE

Almost every farm has more or less low swale land full of springs and producing a quality of hay almost worthless. C. S. Phelps of Litchfield County, Connecticut, relates a profitable experience of draining a slope of this kind containing about six acres. He placed lines of three-inch tile drains forty feet apart. The field was seeded to grass and for the past two years has given heavy crops of hay, amounting to about four tons per year in two cuttings. The cost of drainage and reclamation was about \$80 per acre. Mr. Phelps suggests that where the water comes from scattered springs and the slope is steep drains of loose stones would answer the purpose and prove cheaper if the stone is close at hand.—American Cultivator.

A WOMAN'S FROG FARM

Although the national lawmakers kicked vigorously on an appropriation for continuing the governmental experiments in frog farming, the work will go along just the same. States and individuals have demonstrated that there is big money in raising for market the low-browed songster of the marsh, and even without the "scientific" assistance which the government might be able to give in frog farming there is not likely to be a scarcity of frog legs. Pennsylvania maintains a large frog farm, perhaps the most extensive of any state, but the largest individual frogery is owned and run by Miss Edith Stege, in California. This farm covers nearly ten acres and last year the young woman marketed more than 3,500 dozen frogs' legs, from which she netted something more than \$2,000.—Live Stock World.

We know a man who answered an advertisement of a farm for sale. He was so well pleased with the land that he purchased it, moved his family there and is now a very wealthy man. It all grew out of writing to the advertiser, which cost a one-cent postal card. By a careful reading of the advertising columns you may see something of special value to you. If so, write a letter at once, and be sure to mention FARM AND FIRESIDE.

A good subscriber reads his paper thoroughly, answers the advertisements that interest him, and renews his subscription promptly.

Review of the Farm Press

THE COST AND PROFITS OF ALFALFA

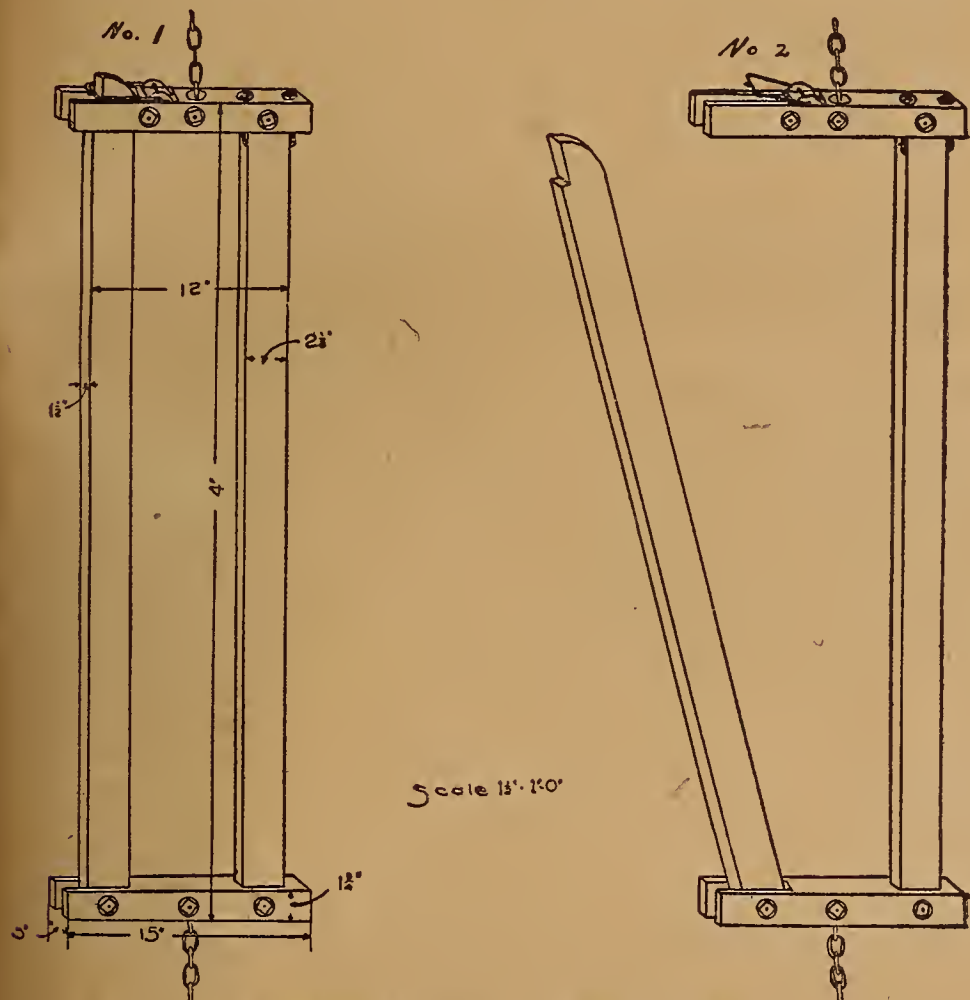
It is somewhat difficult to figure on the value of fertilizers for alfalfa, as the need of all soils is not the same. In my practise I apply stable manure and wood ashes to land on which corn or some other cultivated crop is grown, the year it is seeded to alfalfa, because the ashes are cheaply obtained in my locality, and they furnish the lime the soil needs. In estimating cost it may be right to charge the manure to the cultivated crop, and the ashes, or its equivalent in lime, to the alfalfa. The expenses of seeding one acre of average land to alfalfa in southeastern New York I estimate as follows: One ton of ashes, or its equivalent in lime, ten dollars; ten tons of stable manure for top dressing in the fall, and applying it, twenty dollars; plowing, two dollars; harrowing and rolling, two dollars; thirty pounds of seed, four dollars and fifty cents; total, thirty-eight dollars and fifty cents.

I credit nothing to the crop the first year, as it will but little more than pay for harvesting and the use of the land. The second year I place the minimum yield on my place, where the soils are very rich, as follows: First crop, cut about June 10th, three tons; second crop, July 20th, two tons; third crop, September 1st, one and one half tons; fourth crop, October 15th, one ton; to-

ganisms gain admittance to milk, they find conditions favorable for their development, and proceed to reproduce themselves; hence the bitter taste in milk, cream and butter. To remove the source of infection is no small task, for in all the crevices of every can in which milk has been kept there will be found sufficient of the yeast to carry an infection. It is therefore necessary to thoroughly scald and scrape the seams of every vessel in which milk has been kept, then carefully whitewash the milk-house, cellar or pantry, and should prevent further development in the house. At the same time sweep down the walls and ceiling of the stables, and give all the inside a thorough coat of whitewash or a spraying with some disinfectant, such as bichloride of mercury, one to one thousand parts of water.—American Farmer.

SELLING FERTILITY

Every time a farmer sells a ton of wheat he sells \$11.62 in fertility; in a ton of clover hay he sells \$8.62 in fertility; in a ton of alfalfa hay he sells \$8.63 in fertility; in a ton of oats he sells \$7.81 in fertility, and in a ton of corn he sells \$6.47 in fertility. If these products be fed on the farm under proper conditions, and the resulting manure be returned to the soil, there is a very slight loss of fertility, for the following products may be sold instead:



SWINGING STANCHION, CLOSED AND OPEN

The foregoing diagrams should give a clear idea as to the working of the swinging stanchion. No. 1 shows the stanchion closed as it would be when the cow was fastened with it. No. 2 shows the manner in which the cow is liberated. Although these stanchions are made of wood, the steel stanchions work on the same principle, having as they do a hinge at the base and a fastening at the top.—H. G. Van Pelt in Hoard's Dairyman.

tal, seven and one half tons. The fourth crop is sometimes injured by frost and is left on the ground, which is not then top dressed with manure, but with ashes or lime. On my place this crop has a commercial value of ten dollars a ton, or seventy-five dollars for one acre. To the dairyman its value is nearer one hundred and fifty dollars an acre as compared to the cost of the same food element purchased in grains. After seven years' experience I estimate the cost of harvesting at two dollars a ton, and the cost of maintaining fertility at fifteen dollars an acre each year.—W. H. Jenkins, in Farming.

BITTER MILK

Bitter milk is one of the most annoying ills with which a dairyman can be afflicted. Bitterness sometimes develops in the best-kept dairies, while the most slovenly will be immune. Its cause is an organism resembling the ordinary yeast; in fact, it is a yeast. It is originally found on the leaves of trees, just as the yeast organism is found on hops, but is easily transmitted to milk cows or the stable dust. When once these yeast or-

ganisms gain admittance to milk, they find conditions favorable for their development, and proceed to reproduce themselves; hence the bitter taste in milk, cream and butter. To remove the source of infection is no small task, for in all the crevices of every can in which milk has been kept there will be found sufficient of the yeast to carry an infection. It is therefore necessary to thoroughly scald and scrape the seams of every vessel in which milk has been kept, then carefully whitewash the milk-house, cellar or pantry, and should prevent further development in the house. At the same time sweep down the walls and ceiling of the stables, and give all the inside a thorough coat of whitewash or a spraying with some disinfectant, such as bichloride of mercury, one to one thousand parts of water.—American Farmer.

HELP OUT THE SUMMER PASTURES

Our stockmen will never be worthy of their calling, nor their flocks and herds yield their best returns, until ample provision is made against drought-ridden pastures in summer. Every argument which stands in favor of storing provender for stock in winter holds with equal force for providing feed to make good any possible shortage of pastures in summer.—Professor Henry.

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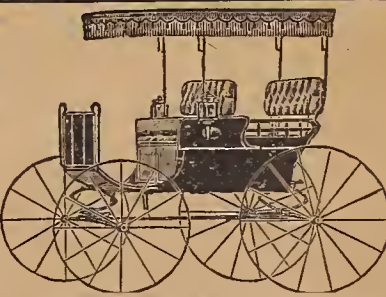
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Gardening

BY T. GREINER

SMALL CELERY PLANTS

IT REALLY seems that the smaller the celery plant when transplanted to open ground, the quicker it will take a new start in its new location. I shall again set a portion of my celery into the garden when the plants have only just made their first true leaves, transferring them directly from the seed flat into the row where they are intended to make the crop. In a dry time the newly set plants may be watered, and the ground hoed or raked so as to make a soil mulch soon after. It requires but a comparatively small quantity of water to give them the right start.

SWEET-POTATO PLANTS FOR MARKET

A reader in Adrian, Ohio, thinks of growing sweet-potato plants for market, and inquires about making hotbeds for that purpose. I believe if I were to go into this on a business scale I would arrange a system of fire hotbeds, for the sweet potato is a thing that needs warmth to start it into growth. Common manure hotbeds if well made will do, but they and the heat in them are always a rather uncertain quantity.

The fire hotbeds can be treated in the same manner as the old-fashioned, flue-heated greenhouse. The pit must be deep enough at the fireplace end for a gradual ascent the whole length of the bed to the chimney at the north end.

Have a substantial floor above the flue, nearly on a level with the ground surface. Cover this with soil and sand three or four or more inches deep. Cover the bed with sashes in roof shape, resting on a ridge pole at the apex, or hinged at a ridge plate. The ends may be closed up tightly with boards.

Fire up, and when the soil in the bed has become warmed through, place your seed sweet potatoes, sliced in halves, side by side, cut side down, so they will just miss touching one another, and cover with clean sand to the depth of about four inches. Give water and ventilation and maintain the fire, as may be needed. Sweet-potato plants may be grown in this manner quite successfully and profitably, provided you have the demand for them.

BLACK ROT OF TOMATOES

Black rot is often very troublesome in our early tomatoes. A Georgia reader says his early tomatoes brought six dollars a bushel last season, but most of his first crop were unmarketable on account of black-rot spots.

We have not yet learned how to conquer this disease. Possibly we may check it somewhat by frequent spraying with Bordeaux mixture, but our main reliance must be found in allowing free circulation of air around the plant, by supporting the vines in such a way as to hold the fruit up from the ground. Last season our tomatoes were entirely free from rot, or nearly so.

ASPARAGUS PLANTS

It surely is better to have asparagus plants to sell than to have to buy them. They are about as easily grown, too, as any other garden crop. All you have to do is to buy an ounce or two (or more, if wanted) of seed which is cheap, and sow it in drills a foot apart, not too thick in the row, and about an inch deep. Use the wheel hoe or common hoe as you would on other garden crops, keep free from weeds, and thin the plants where needed to stand several inches apart, and next year you will have a superior lot of asparagus plants to sell or plant. Plant some anyway, for the crop surely pays.

FERTILIZERS FOR POTATOES

"What kind of fertilizers for the potato crop on limestone ground for best effect?" This is the query of a Kentucky reader.

If we are willing to pay forty dollars or more a ton for a complete fertilizer that is entirely safe and usually giving good results and returns, we may select any one of the commercial "vegetable or potato manures" of a guaranteed analysis of about four or five per cent nitrogen, eight to twelve per cent phosphoric acid and eight to ten per cent potash.

In most cases, however, it will be cheaper and more profitable to grow the nitrogen in a leguminous crop, especially some of the clovers, or in cow peas, using mineral manures (superphosphate and some form of potash) on them, so as to get a full crop, and plowing this under

either wholly or at least partly (stubble or second crop) and then following this with potatoes. Or we may apply several hundred pounds of plain superphosphate, and some sulphate or muriate of potash broadcast the same year we plant potatoes, if the land had clover or cow peas plowed under the year before.

PLANTS FOR PROFIT

Don't forget that cabbage plants and celery plants, as also pepper, tomato and egg plants, are readily salable in almost any neighborhood. Late cabbage and celery plants especially are cheaply grown, even wholly in open ground, and will yield big returns (in a small way) from a little spot of ground. In fact, I could hardly name another crop that returns so much for so little attention and expense.

Under favorable conditions an ounce of cabbage seed will give over two thousand plants. I usually sell them at twenty cents a hundred. Many thousands of celery plants can be grown from one ounce of seed when conditions are favorable, and the plants may stand even more thickly in the rows, and will give us a longer time to plant or sell them than do cabbage plants. But there is more chance of failure unless we start the seed in flats in my favorite way, and transfer them to the nursery row outdoors in sections.

Cabbage seed should be sown at frequent intervals, so that we have a continuous supply of just the right-sized plants for some weeks. I sow Danish Ballhead late in April and all through May; Surehead or others of the Flat Dutch type somewhat later, and Early Winningstadt even up to the end of June.

KILLING WEEDS IN ASPARAGUS BED

"Is there anything that can be put on an asparagus bed to keep weeds and grass from growing, yet not hurt the growth of the asparagus?" A Nebraska reader asks this question.

The best thing, I believe, is the hoe or other tools of tillage. I prefer the blanching stalks, and hill up the rows in spring, and work the ridges down again after the cutting season. This disposes very thoroughly of the weeds up to July, but afterward it requires considerable effort to keep grass and weeds down.

Heavy dressings of salt may do some good in this respect, but I have never been able to keep the weeds down by this means alone. Salt will not hurt asparagus, however. There is no other chemical substance that I know of which will do the business and can be used safely.

TREATMENT OF OLD LAWNS

A New Haven, Connecticut, reader says he has a lawn twenty years old, on which he has sown new seed every year, applied bone, etc., but which apparently needs other treatment to give it a new lease of life and usefulness. Perhaps this lawn is overrun with dandelions, plantains or other weeds hard to eradicate, and the growth of grasses is weak and thin. The best thing to do with it in that case, in my estimation, is to plow or spade it up, turning the sod over pretty well, then applying a coat of old manure free from weed seeds, as a top dressing, and stir that well into the surface. If it then could be left in this condition for a season, giving it free surface cultivation right along, so as to induce most weed seeds near the surface to germinate, and then to kill them at the next cultivation, the land would be in good shape next fall or spring for reseeding, using seed very thickly and a nice, new, clean lawn will be the result.

If the soil is overgrown with mosses, or weeds giving evidence of acidity, or simply sod-bound, it may be scarified by sharp-cutting harrows, going over the patch quite often, so as to rip it up thoroughly. Then apply a dressing of lime or wood ashes, and perhaps a coat of old manure or leaf mold or good old garden soil, sow grass seed liberally, and finally harrow with a smoothing or similar harrow or roll with a good roller. You will most likely get a good lawn again. Kentucky blue grass is one of the best lawn grasses, even when used all alone by itself. We usually add some white clover to it, or for wet spots, redtop. These simple grasses are just as good as the most expensive lawn mixture.

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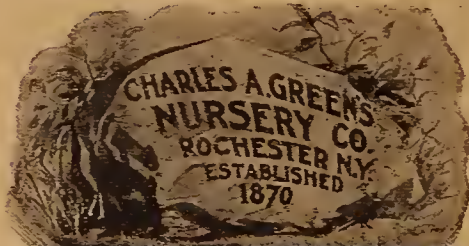
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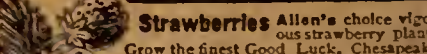
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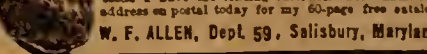
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Fruit Growing

BY SAMUEL B. GREEN

THE COTTONY MAPLE SCALE

THE cottony maple scale is a common pest on soft maple and some other trees, especially those planted in parks and along the streets for shade and ornamental purposes. It belongs to a group of very much specialized insects which have a habit of spending a very large portion of their lives attached to one place on the plant on which they live. During the greater portion of their existence they are covered with a shell of greater or less hardness, which often resembles very closely the surface of the food plant. Owing to these characteristics and the fact that they look so little like insects, they are commonly overlooked by all except those who are making a specialty of studying them. The injury is done while the insect is taking its food. To do this it thrusts hair-like bristles from its mouth into the plant tissues and draws out the sap.

The cottony maple scale has attracted considerable attention during the past few years on account of its unusual abundance and the injury it has caused in a number of widely separated localities. It is found throughout the middle zone of states in the Eastern portion of the country and in many of the far Western states. It is a native of this continent and has long been widely distributed. Ordinarily it does little injury, because the numbers are too small, being kept in check by its natural enemies. Sometimes these fail for some reason to perform their useful offices and the scale increases in marvelous numbers.

The adult form of the insect is most easily recognized during May and June when it secretes a white cottony mass of wax about the size of a pea from under the scale. These masses appear on the twigs and small limbs. They may range in numbers from a few scattering individuals to where the under sides of the limbs are nearly covered with them. The masses at this time are more commonly found on the lower limbs and most often on the under sides of these. In the center of the fluffy masses the insects lay several hundred tiny oval nearly white eggs and then die. The egg laying continues with different insects from the latter part of May until about the first of July. The eggs hatch in June and July and the tiny young soon find their way to the leaves and begin to feed. Most often they set-

tle on the under sides near the veins, but they are sometimes found on the upper sides and even on the young tender shoots. Here they live during the summer without changing their position. It is during this season that the injury is done to the leaves. The old deserted cottony masses still cling to the limbs and are sometimes to be found there for more than a year after they were formed. They, of course, do no injury. In August and September the male scales develop into tiny winged insects, but they soon afterward die.

The females remain on the leaves until October and then migrate back to the twigs and limbs. At this time they are a little over a sixteenth of an inch in length. They fasten themselves for the last time, usually lengthwise the twig, and more often than not on the under side of it. During this fall migration a great many are lost by clinging to the falling leaves and otherwise failing to secure good hibernating places.

Throughout the winter the scales may be found in this position and during this time they take but little, if any, nourishment.

As soon as the sap begins to flow in the spring they begin to grow. Their color is almost exactly that of the bark and they escape unnoticed. By the latter part of May or early in June they are full grown and measure about three sixteenths of an inch across. The waxy mass is secreted from the under sides, and this gradually raises the insect until it stands at an angle of sixty degrees or more to the twig on which it is resting.

As already stated, the insect does most injury to soft maple trees, but it is also very abundant on black locust and Virginia creeper. Nearly fifty food plants are known, but commonly only the ones mentioned will be so badly infested as to need treatment.

REMEDIES

The scale is so well protected at most stages of its life that it is very hard to kill without injury to the tree. The best time is during the winter while the trees are in a dormant condition. An insecticide can then be used which is strong enough to kill without injury to the tree. All parts of the tree can be reached, which cannot be done when they are in foliage. The amount of insecticide required is very much less than in summer.

The insecticide most commonly used is kerosene emulsion. This is a mixture of kerosene and water accomplished through the use of soap and made according to the following formula:

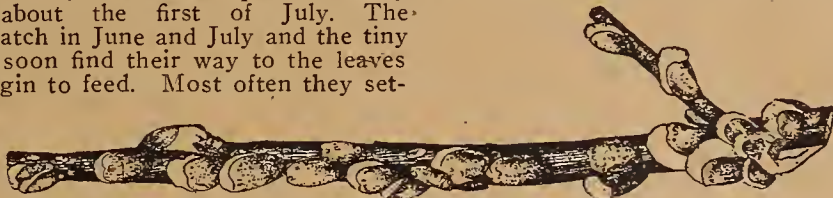
Kerosene2 gallon.
Soap34 gallon.
Water1 gallon.

In cases where the number of trees is small or the insects are on Virginia creeper or grape, they may be treated as soon as the cottony masses show themselves, by trimming out twigs and branches, where such an operation will not mar the beauty of the plant, and thoroughly soaking the remaining masses with kerosene emulsion which is one fourth kerosene. This emulsion may be applied with a brush or sponge, and must, of course, be kept from the foliage, which it will destroy.

S. ARTHUR JOHNSON.

PREPARING BUCKTHORN AND OSAGE ORANGE SEED

C. N. G., Centralia, Washington—In the case of buckthorn, if the seed is received in a dry condition it is best to mix it with moist sand and allow it to stand in a cool cellar where it will not freeze for a week or more, then put it outdoors and allow it to freeze for a week or two, or let it remain until planting-out time, when it should be brought into the house and stirred each day from the bottom of the box. As soon as the seed shows signs of starting it should be sown in loose, light soil, and sow it thick in the row. A sandy loam is better than a stiff clay in which to sow it. Be careful not to allow the seed to start much in the sand



COTTONY MAPLE SCALE

before it is sown, or it may be injured.

In the case of osage orange, the seed may be handled in the same way with fairly good results, or the dry seed may be put in some water-tight dish and covered with very hot, but not scalding water, which should be allowed to stand over it for perhaps forty-eight hours. The seed will then be moist, and if kept so for a few days it will show signs of starting, when it may be sown in the open ground.

TRANSPLANTING OLD CURRANT BUSHES

K. B., Fergus Falls, Minnesota—In the case of old currant bushes that are taken up to move, I would suggest that the roots be divided if they have several shoots, cutting them into two or four pieces, but of course planning to give a good piece of root to each part of the plant.

The best time to transplant them is in the spring. In planting they should be put perhaps two inches lower than they formerly grew. Care should be taken to pack the soil firmly about the roots. It is not necessary to wet the roots when planting out, provided the soil is packed firmly; but if this is not done, the roots are liable to dry out, especially in windy spring weather.

Manure may be applied to advantage to the top of the ground after the plants are set, but should never be put in contact with the roots.

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E. Z. C., Redford, New York—I presume a vinegar substitute could be made from acetic acid and other material, but it would hardly be looked upon as a true vinegar under our modern pure-food laws, as it would be lacking in solids. It might, however, if well made, be a very good substitute for vinegar, but should not contain more than four per cent of acetic acid.



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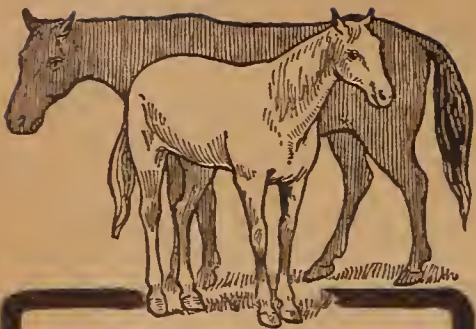
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Smaller quantities at a slight advance.

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Live Stock and Dairy

DOES HE LIE ABOUT THE BULL?

THE farmer who keeps a bull for neighborhood patronage finds it necessary to change every two years to avoid inbreeding the young heifers. This change is advisable; but if the bull has proved a good one, he should not be sent to the block. A bull that possesses the capacity to raise the standard of cattle in a neighborhood should be passed on to other breeders. No other kind of a bull should have been used in the first place.

There is a tendency among farmers to buy cheap, inferior bulls, so that they may be "shoved off" to the butcher without loss as soon as the usual period of breeding makes a change necessary. We affirm that a three-year-old service bull that can be disposed of to the butcher without loss must be too ordinary to have been used at all for breeding purposes. Working under such methods there can be little "breeding up;" there is liable to be retrogression.

The farmer who purchases a high-class bull at one year old should find a ready sale without loss to some other breeder two years later. Such a bull should be in his prime for service. Even if each purchaser were to lose twenty-five per cent of the original price, the increased value of young stock would prove many times a compensation for the loss.

Why do Western steers carry off all the prizes at every international stock show? Some may say, "They have the feed out West." Yes, but the secret lies in the fact that Western feeders have the blood, the high-class bulls. Why is it a revelation for the Eastern feeder to ride over a Western railroad and to see the herds of cattle on the plains? Because the Western breeders have the blood, the bulls.

Eastern feeders realize that the cattle-feeding section has shifted to the West; because, they say, intensive farming has made feeding expensive. Yes, but we still feed out a good many cattle. The question is, "Are those we feed up to the standard?" If we do not compete with the West in quantity, is there any excuse why we should not compete in quality?

It is an easy matter—a common occurrence—for a neighborhood to lose one thousand dollars in depreciated sales of market stock within two years, just because the farmers believe in cheap bulls. Intensive farming demands high prices for produce. Does the scrub steer pay?

The mixed dairy and beef business in the Eastern states is responsible for much of this mischief. Many farmers pursue the aimless policy of breeding to either a dairy bull or a beef bull, whichever be handier, and regardless of the purpose to which the calf is to be put. The consequence is that the progeny is "neither one nor turrer." Large feeders as far east as Ohio are filling their pens every winter with range cattle because native stock of promising type cannot be bought; yet a good deal of common "stuff" is for sale.

The next time we apologize for Eastern feeding methods, let's doff the hat to the Westerner and his definite idea of breeding for a single purpose, from a bull that has blood.

Ohio. **GEORGE P. WILLIAMS.**

SOME DAIRY QUESTIONS

Do you know that butter prices are advancing and we have every prospect of seeing higher prices for that product between this time and spring pasture than we have seen for a number of years? Do you know that the consumption of good milk in the centers of population is steadily and rapidly on the increase, that there is an actual "milk famine" in some quarters, and that dealers in the large cities are reaching out for milk into sections they have never before tapped? Don't you know when they go hunting milk they expect to pay well for it, and that every gallon of milk thus taken for the city milk trade withdraws just that much from the possible supply for making butter, and that that is one of the reasons why butter is scarce and high and promises to be scarcer and higher?

Don't you know that hay is high, and all commercial feeds high, also, and that oats is high, and corn, notwithstanding we have the bumperest crop ever grown, shows no weakness of price? Don't you know that if you think you will "put on a few more cows" and go out into the wide world to buy them, that you have to look far to find them, and go deep down into your pocket to get them—that is, I mean, cows that are worth having?

Don't you know—I am sure you should

know—that the average cow is not worth her board and keep, and that you will find in your herd, unless you have a remarkably good herd, some of those very same average cows, and that you are very unwise if you do not widen their ration and encourage them to get fat, and then move them on as rapidly as possible to the butcher?

Don't you know that with feed high and labor high and time fleeting, that it is utter nonsense to feed good marketable feed and put strenuous, expensive labor into an unfortunate Jonah of a cow that was foreordained to be a failure? And again, if you have pretty good cows and very good cows, and their product brings you such good returns as now, don't you know that it will pay well to look after those cows carefully and make them comfortable and supply them abundantly with the best nutritious feeds?

And don't you know that there is no way by which the work of individual cows can be ascertained except the milk of each one be separately measured or weighed; and if the milk is sold by a fat test, or is used for making butter, that the Babcock test is quick and sure to tell us concerning the content of fat?

Finally, in view of the fact that when cows are to be bought they are difficult to find of the quality a good cow man wants to own, and when found it requires considerable money to own them, won't it be a good move in the direction of real dairy progress to use a good, pure-blood bull of a dairy breed, and from the best calves of your best cows have some good cows of your own raising?

Pennsylvania. **W. F. McSPARRAN.**

REMEDY FOR CHOKING IN CATTLE

Procure about three feet of one-inch hose, the kind that is used for sprinkling lawns. It must be rubber-covered, so as to be quite stiff. Pass this into the animal's throat and push the obstruction down, and if the animal is already much bloated, leave the hose in a few minutes, and you will hear the gas flow out.

The hose bends, but does not close up, and quick relief is given, which is necessary in a great many cases.

Wisconsin. **WM. W. ALVOORD.**

OVERFEEDING IN BROOD SOWS

Many fine litters of pigs are lost, especially at the time when some farmers want to be particularly good to their brood sows, by giving them too much feed the first three days after farrowing.

I have often noticed that the experienced brood sow, should she be allowed to have her own way at that period and the range of the farm, will prepare her bed carefully on the south side of the hill, or with some other protection from the northwest winds. If possible, she will make her bed near a spring or slough.

If her habits are watched closely, it will be noticed that she will eat nothing the first day. The second day she will probably go to the spring and take a drink. The third day she may be looked for to come home, bringing her pigs with her—with pardonable pride, and will usually bring a full, healthy litter.

I do not believe it is prudent to give brood sows this liberty. However, it would be better for some farmers if they would. By studying Nature we can provide better quarters than Nature will furnish, can take advantage of the instinctive wisdom of the brood sow, and also of the wisdom of man. But upon one point, however, Nature is inexorable: the brood sow must not be fed heating food the first three days after farrowing. To do so is to invite caked udder, or what is known as milk fever, and kill the pigs.

The first day give nothing but water; the second day stir a little bran in it; the third, add a little bran and oats; the fourth, a little corn might be added, but the sow should not have a full feed of corn for a week or two.

There is no trouble in giving bran or shorts, or ground rye or barley in the form of slop. In other words, the brood sow with a young litter of pigs should have a dairy cow's ration. She should be fed for milk and not for meat.

It should be remembered that for the first three days the system is feverish; and that in fever there is no appetite. Therefore, to encourage a sow to eat food such as corn is to invite disaster.

Never give sour milk to the brood sow with a young litter of pigs. To do so is to invite scouring and ruin the prospects of the litter.

Illinois. **WM. H. UNDERWOOD.**

SEPARATOR FREE

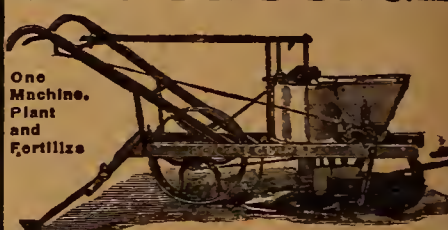
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Live Stock and Dairy

HORSES VERSUS MOTORS

Now that the construction of an agricultural motor capable of threatening the position of draft horses for farm work is an accomplished fact, it may serve some useful purpose to compare the relative merits of the rival powers. It is scarcely conceivable that farmers will be in any haste to supersede their old friend the horse by the newer power, but it is to their own interest that they should investigate closely the advantages and disadvantages of the alternative agents. The motor is still, to a large extent, an unknown quantity, in so far as the average farmer is concerned, but he can hardly have failed to have read something respecting its capabilities and accomplishments, for during the past year or two much has been published concerning its work on the harvest field and at tillage work. Perhaps the actual merits of the mechanical inventions are not to be measured entirely by the enthusiastic descriptions of their makers, since it is only natural that these should be couched in highly colored terms. The development of the motor principle, however, has progressed far beyond the seclusion of the inventor's back garden, and the stage at which the public are wholly dependent upon him, for an account of its qualities and capabilities. It has come into the open market prepared to tackle any task that the curious may desire to set it, and the larger the number that avail themselves of the opportunities of witnessing it in operation, the better pleased will its champions be.

The common argument against the motor is that unless it can displace its equivalent in horse power, not in field work alone, but in road and other carrying operations, it cannot advantageously receive the favor and confidence of farmers. It is soundly reasoned that if horses have to be kept for carting and other more exacting duties they may just as well be utilized for tillage and other work, even if the latter should be more cheaply and thoroughly accomplished by motor power. In the case of very large farms, the position, of course, might be different, and one or more motors be introduced in place of a certain number of horses; but the average farmer will have to satisfy himself as to

pedigree and approved type can appreciably modify them if he utilizes the mares, as he can quite easily do, for the breeding of colts and fillies. There is always a good market for well-bred young stock of promise, and the shrewd farmer does not neglect to make the most—and it usually amounts to a good deal—of the opportunities that present themselves in this way. Many of the best and highest-priced Shire horses have been bred by farmers from working mares, after the fashion of a sort of by-product, and before substituting motor for equine power, the loss of this market will have to be taken in the reckoning.

Canada.

W. R. GILBERT.

THE BROOD MARE AND HER COLT

Before the brood mare foals she should be well cared for. Her feed should be plentiful and her quarters comfortable. During the winter months a mixture of corn and oats should be fed. The oats will keep her bowels in good condition and the corn will supply strength and heat to her body. Good timothy hay should be fed, but in limited quantities, for it tends to constipate. Millet hay, fodder or molasses cane make good roughness, but caution should be taken that the mare does not gorge herself.

The brood mare should have a dry box stall to shelter her at night and from the storms. If she is compelled to stand or lay on a muddy floor, she will not like it, and is apt to slip down and permanently injure herself. In the daytime she should have plenty of exercise, but must be kept separate from vicious horses, that are liable to kick and seriously cripple her. Some farmers are accustomed to work their brood mares each day. This does not seem to injure them; in fact, it is generally admitted that light work is beneficial. We have often worked a mare up to the very day she foaled, and the colt would be strong and healthy. Care should be taken not to strain the brood mare by putting her to heavy loads.

After she has foaled she should be put in a small lot until the colt is strong enough to follow her and keep out of the way of other stock. On cold, rainy days the mare and colt should be brought to shelter. In order for the mare to suckle well



MATCHLESS DANE—PRIZE-WINNING HACKNEY AT THE FAIRFAX HORSE FARM

the tractability of the motor in the minor, as well as in the main, operations before he transfers his patronage from the horse. In balancing the merits and demerits of the rival powers it is proper that they should be considered in their broadest aspect. For instance, a reckoning of the bare costs of the operation performed by the two powers might be productive of an injustice to the horse, as it is possible for the farmer, if he keeps a good class of heavy draft animals, and is competent to turn them to good account, to reduce their cost very materially by breeding young animals for sale. With the motor there is no chance of favorably altering the two sides of the working account, but the farmer who keeps Shire horses of sound

she should be kept on good grass pasture as much as possible. Neither mare nor colt do well when she is kept on dry feed exclusively. If the mare can be allowed to run in a grass pasture continually it will be better for the colt. If the pasture gets a little short, a mixture of bran and oats will increase the flow of milk and supply sufficient nourishment to the colt. Should it become positively necessary to work the mare, her colt should be left at the barn or in a lot fenced with strong boards or rails. The colt that follows the mare in the field will wear itself out and become a source of worry to the farmer. Then, too, it is apt to suck the mother when she is heated, and this sometimes results disastrously to the colt.

Missouri.

W. D. NEALE.

GOOD ADVICE ABOUT CREAM SEPARATORS

Announcement of the Alpena Farm Produce Co. in the Alpena, Mich., Argus, Feb. 13, 1907.

"In reply to inquiries we wish to repeat that the Alpena Farm Produce Co. will not buy cream that is not separated by a cream separator, for the reason they must have pure, clean cream which can be obtained in no other manner. Therefore every patron of the company must have a separator, and, if you have not already procured one, you had better see about it in the very near future. The Produce Co. is very emphatic in its assertion that it does not matter what kind of separator is used, so long as it is a good standard make. Do not buy 'cheap' separators first because some 'mail order' house catalogue says it is the best in the world. The fact is that 'cheap' separators are always the dearest in the end. In the first place they do not skim as closely, and in the next place they will not stand the test of years. If you have a 'cheap' separator, not a standard make, you must not complain if you do not make as much money from your cows as you thought you would. The Produce Co. is handling the DE LAVAL separator because they can safely recommend it as an absolutely reliable machine. If that machine does not prove satisfactory the trouble must then be with the manner in which you care for and feed your cows. Be sure you start with a good machine."

The big creamery concerns which look the country and the world over in reaching separator conclusions are almost invariably users and endorsers of the DE LAVAL machines. Their example and advice is the kind that the inexperienced buyers may safely and wisely follow.

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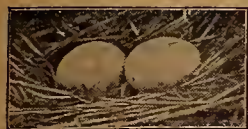


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A Boy's Squab Farm

A Fourteen-Year-Old Boy is a Successful Squab Raiser



PIGEON EGGS

them, besides a world of pleasure and knowledge gained by working with living things. The boy or girl who goes about it in the right way will gain more knowledge of biology in raising squabs than from a course in the average high school or college. The knowledge thus acquired comes first hand, hence it has the highest educational value.

All young folks contemplating going into the squab business will do well to carefully study the methods of Master Homer Winch, of Austin, Illinois, whose picture and squab house are shown in the illustration and who has become unusually successful. The following is what he told me about raising squabs and pigeons:

"The raising of squabs for market is an interesting and profitable business in the hands of an expert. Wild-game birds are scarce, and the properly raised squab pigeon comes the nearest of anything else in taking the place of game birds.

is dry and free from drafts. The floor should be of wood and set above the ground on posts to keep out rats. Windows should be set on the south and east sides, to admit plenty of sun. For nests, fifteen-inch boards are nailed to the sides of the house, twelve inches apart. Partitions are placed along these boards fifteen inches apart, thus making each nest fifteen by fifteen inches and twelve inches deep. At least two nest boxes should be allowed each pair of breeders. These nests are large enough for the largest pigeons, but may also be used for the smaller varieties.

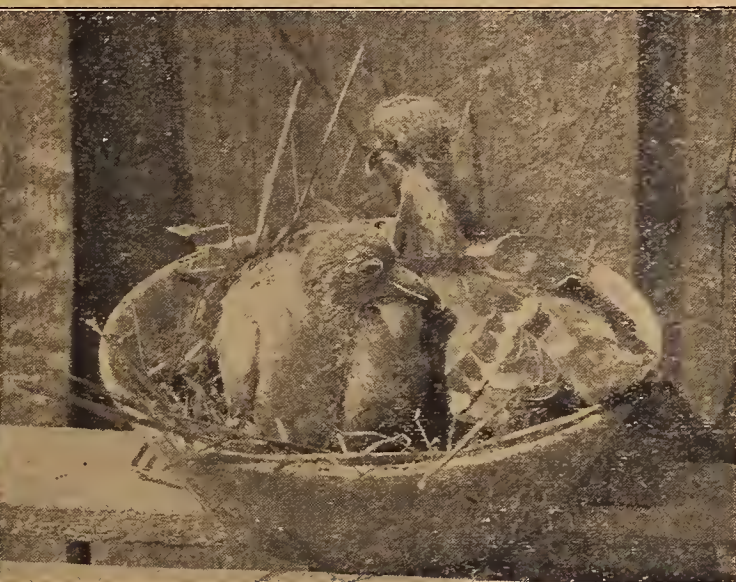
"The feed trough is a board from two to four feet long and six inches wide. A two-inch strip is nailed around the sides, to keep the birds from scattering the grain. Salt, grit and ground oyster shells must be kept before the birds at all times. Place a large lump of rock salt near the water fount, and the pigeons will get what salt they need from it. Pigeons require a variety of grains. I like the following mixture: Six parts wheat, four parts cracked corn, two parts millet seed, two parts Canada peas and four parts Kafir corn. Feed a little hemp seed once a week. As it is very fattening it should not be fed

feet across the wings, and the Maltese hen, a very large-breasted, compactly-built pigeon, make the best squab pigeons on account of large size. A cross between these two gives excellent results, the Runt having the long keel, while the Maltese furnishes the large breast. The squabs from these large birds weigh from fourteen to twenty-four pounds to the dozen, while Homing squabs weigh only from eight to twelve pounds to the dozen. These pigeons do not breed as fast as the Homings, but the difference in weight of the squabs more than makes up for this.

"Tobacco stems are used in the straw for nesting material, to keep out lice. The female bird lays an egg, and stands over it until the second egg is laid two days later. In about seventeen days the eggs hatch. The old birds feed the young on a liquid known as 'pigeon's milk' during the first week, which gradually thickens until the tenth day, when they receive the whole grain from the crops of the parent birds. When about four weeks old the squabs are ready for market. If they are left too long they will be able to fly and lose much of their flesh and tenderness. When the young are from two to five weeks old the mother



SQUABS ONE DAY OLD



SQUABS THREE WEEKS OLD

As in the poultry business it takes careful attention to details to get the best results.

"There are many that have some loft that could be used for pigeons. There are also those living in cities and towns who have a small unused space where they could build a loft to meet the conditions, and by buying a few pairs of breeders and allowing the young to increase, could soon fill the loft to its capacity.

"Nearly any loft or building can be made suitable for a breeding pen if it

too often. The flying pen should be large enough for exercise and bathing, and should be completely enclosed with two-inch mesh wire poultry netting.

"Authorities differ as to the variety of pigeons best suited for squab raising. Many believe that the Homing pigeon, on account of its fast breeding qualities, is the best for this purpose. A pair of this breed will raise from six to nine pairs of squabs a year.

"From my own experience I find that the Giant Runt, which is a very large pigeon, measuring nearly three

bird lays again in another nest, and both parents take turns in sitting on the eggs and feeding the young.

"When buying foundation stock it is best to pay a little more and secure the best to begin with, as it is a pleasure to breed first-class stock."

HIRAM H. SHEPARD.

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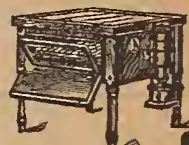


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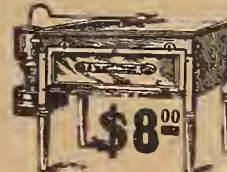
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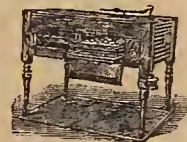
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In a recent debate on the comparative integrity of public officials Ex-Governor Campbell made pointed use of a good old Wall Street joke. He said:

"With this great accumulation and aggregation of wealth has come the mere worship of wealth. You cannot serve God and Mammon, and the world seems to have found that out, and a good size of a chunk of it is going to serve Mammon and let God alone. That is why there are more scandals to-day in the business world in twenty-four hours than there was in George Washington's time in fifty years.

"I don't say that all people are dishonest. Far from it. The world is honest; men are honest. The dishonest man is the exception. There is a very small percentage of men in politics who are born dishonest. Some of them succumb to their environment. But, in the business world, dishonesty has become so common that it is not regarded as a joke any more. It used to be a standing joke in Wall Street that there was only one honest man there, and the statue of Washington in front of the sub-treasury was pointed out as that man."

BALANCING CROPS AND RATIONS

In a comparative pig-feeding experiment conducted by the Indiana Experiment Station last year, one lot of pigs was fed cornmeal only, with the result of a light gain in weight at a loss of three cents. A similar lot was fed a ration of two thirds cornmeal and one third soybean meal, with the result of a heavy gain in weight at a profit of \$5.66. This is the old lesson of balanced rations, but it cannot be made too plain.

American farmers now have two wonderful crops, one widespread and the other spreading wide—corn and alfalfa. They are the ideal crops for balancing feed rations. One is rich in heat and fat forming food elements, the other in bone and muscle forming elements. One is a grain, the other a forage crop—each in concentrated form of its kind. With them one can compound rations in proper proportions for young stock, mature stock and fattening stock of every kind on the farm, from the little pig and his mother in pasture to the fat steer in the feed lot; for the busy hen as well as for the fat lamb.

Wherever you have rich, sweet, well-drained soils that produce good crops of corn, sow alfalfa. They are the greatest companion crops in the country.

FORMALIN TREATMENT FOR SMUT

The yield of oats, or wheat, is reduced from five to twenty per cent or more by smut, a parasitic plant of wide distribution. The smut spores are carried on the grains, and can be killed by a very simple and inexpensive treatment of the seed.

Get from your druggist a pound of pure formalin for every fifty bushels of grain you intend to sow. Add it to forty-five gallons of water. Have the solution in two or three barrels. Place a bushel of grain in a coarse sack or wire basket, and submerge it in the solution, shaking it about until every grain is saturated. Allow the first lot to drain back into the barrel while treating the second, and so on. The dampened grain spread thinly on the barn floor and shoveled over a few times will soon become dry enough to sow by hand or drill.

It is the prompt and intelligent attention to such important little details that often makes the profits in farming.

ENMITY AGAINST RAILROADS

A letter from Mr. John Buxton, of Oklahoma, reads as follows:

"I read a piece in your paper about some one going into a farm house the past winter and the good housewife making excuses for having a fire in only one stove, when they had three stoves which they used to keep going all at once in cold weather. Owing to the high price of coal, ten to twelve cents a bushel, they could not afford to use more than one stove.

"Out here we would think we were doing fine if we could get coal at that price. Coal costs us about thirty-six cents a bushel. Twenty-five bushels make a ton. The cheapest lump coal here is \$8.50 a ton up to \$9.50.

"The railroads own and operate all the coal mines in Oklahoma, and they haul the very same kind of coal to Kansas City and St. Louis and sell it at \$4.50 a ton. So we think your Ohio people can't grumble much when you look at what you have to pay and what we have to pay and mark the difference.

"The way you go for members of Congress who are against the farmers' interests makes one feel good, and I am glad to see the people relegating some of them to private life. Keep on in the good work. If the farmers would cast partizan politics aside and vote for the best men without regard to parties, we would have better laws."

The keynote of Mr. Buxton's just complaint is unfair railroad discrimination. He and his neighbors are experiencing just what people in every part of the country suffer from. With him it is injustice in rates on coal; with others, injustice in rates on other articles of freight traffic. He has simply voiced common experience and sentiment.

Some of the big railroad managers are now complaining about the press inciting the enmity of the people against railroad corporations, and compelling the enactment of drastic laws for controlling them. If there is any enmity against railroads, the greedy financiers who have seized control of the transportation business have only themselves to blame. They are not railroad operators, but railroad manipulators. Not railroading, but stock gambling is their real business. They are directly responsible for illegal discrimination in rates, rebates, special favors to some and special extortion from others, and for aiding and abetting all kinds of monopolies. In fact, they are the main

support of every monopoly in the country.

The people everywhere are finding them out and they are determined to abolish the evils for which they are responsible. It is not enmity against railroads, but righteous indignation and a positive determination to overthrow the schemes by which they are being robbed that impels the people of this country to protect themselves by legislative reform measures and stern enforcement of law.

Citizens of Oklahoma and every other part of the Union know that in our civilization the railroad is a necessity, that agriculture and transportation are mutually dependent and develop together, but that for self-preservation they must drive out the financial buccaneers from control of the railways.

In these days judges as well as plain citizens can use vigorous language about modern railway management. In a recent dissenting opinion Judge Roby, of the Appellate Court of Indiana, says:

"The average citizen, instead of regarding a railroad company with the kindness that his father felt for it, has come to regard it as an enemy. Railroads are as beneficial and essential as they ever were, but their management has aroused a spirit of opposition because of which the representatives of such companies who appear in court seem to have lost faith in the jury system, overlooking the fact that the vitality of that system lies in the disposition of common men to stand together against any influence which they regard as inimical.

"A modern railroad corporation is a money-making machine. Its sole function is to make money. It is not concerned over the statute defining manslaughter. It has but one vulnerable point—it responds to but one sentiment. It will not continue to do that which costs money and lowers dividends. If it is cheaper to kill twenty faithful employees, one at a time, than to build a bridge, they will have to die. If it is cheaper to build a bridge, one will be built. And immunity from the payment of damages on account of grade-crossing accidents has probably had as much to do with the prevalence of such accidents as the increased rate at which it is possible to run a locomotive engine."

DENATURED ALCOHOL

In its closing days the 59th Congress passed an amendment to the tax-free alcohol law, providing for the operation of small farm distilleries on the German system.

This amendment permits the manufacture of alcohol from farm products on a small scale without the expense of constructing a bonded warehouse and separate denaturing warehouse on the premises of every farmer who engages in the business.

This amendment will accomplish much to perfect the law passed last year, and ultimately will result in lowering the price of denatured alcohol to the point where it can be used for many different industrial purposes. Under the small farm distillery system alcohol can be made from cheap, bulky farm products which could not profitably be hauled several miles to a large distillery. Secretary Wilson has estimated that alcohol might be distilled from green cornstalks at a cost as low as three cents a gallon. This would be impossible, however, if the green cornstalks, or other such bulky materials, had to be hauled off the farm to a distillery a few miles away.

Another good feature about this amend-

ment is that it broadens the manufacture of industrial alcohol so that much unnecessary transportation of the raw material and the finished product will be eliminated, and also that it will be much more difficult for monopolists to control the business.

Judging from the many queries received there is a very great interest now among farmers and others in this subject. The United States Department of Agriculture has published some bulletins on denatured alcohol which cover the subject conservatively and quite thoroughly. They can be obtained on a written request to the Secretary of Agriculture, Washington, D. C.

THE APRIL 10TH ISSUE

will be featured with articles and illustrations that will gladden every farm home it reaches.

The Farmer in the Dakotas

A new epoch in the history of farming in the rich, broad prairies, where wheat fields as level as the ocean at rest stretch away in every direction. The great problems that confront the Dakotans and how they solve them will be an entertaining and instructive feature.

"The Celery City"

illustrating and describing the development of a new industry in Florida that may make Sanford as famous as Kalamazoo.

Another New Serial Story

entitled "Mill Owners," written specially for FARM AND FIRESIDE, will commence next issue in the Magazine and Feature Section. It is a tale, clean and wholesome, with plenty of excitement, love and romance, and has to do with life in a Northern cotton mill and in the cotton districts of the South. It is a story that will appeal to all our fiction readers, and we do not want any of them to miss it. See page 16, April 10th issue.

Lee's Surrender at Appomattox

The forty-second anniversary of the end of the Civil War, together with other famous bits of history, will be interestingly told by pen and picture.

Short Stories for Little Folks

The boys and girls who have been such loyal supporters of FARM AND FIRESIDE are not to be forgotten in the round-up of good things, and we know their special pages will be brimful of interesting stories.

New Ideas for the Housewife

The wife or daughter of the home is never too busy to grasp the helpful ideas as they come along, ideas that will perhaps make her daily tasks lighter, her household more beautiful or her cooking better. There will be two pages just chockful of the kind of suggestions the thrifty, up-to-date housewife needs at this season.

Stop and Think About This

We do not want you to miss any of the many features, and the above are only a few to be contained in the next issue, therefore we want to again remind you that the only way to insure getting the paper is for you to

See that Your Subscription is Paid Up



A CLUSTER OF EASTER LILIES

PACKING EASTER FLOWERS FOR SHIPMENT

A VASE OF MOUNTAIN-LAUREL

THE EASTER FLOWER MARKET

BY WALDON FAWCETT



A FLOWER VENDER

THE joyous Eastertide is, financially speaking, the harvest time of the floral industry throughout the world, and what marvelous resources are called into requisition to furnish the petaled emblems for the great spring festival may be imagined from the fact that in the United States alone there is an investment of approximately twelve million dollars represented in the florist establishments which handle cut flowers. Estimates based upon statistics prepared by the United States Department of Agriculture and the Society of American Florists indicate that the people of Uncle Sam's domain expend for Nature's fair trophies each Easter not less than six million dollars, two thirds of which sum is paid for cut flowers. Lilies, roses, carnations and violets are the queens of the Easter bower. For the alabaster, bell-like blossoms which are supposed to be especially well qualified to welcome the resurrection-morn there is paid each year about two million dollars, and the purchases of roses amount to almost as much. Thousands of dollars' worth of violets are purchased, principally to be worn by fair worshipers, and the miscellaneous flowers which are disposed of cost a pretty penny.

The preparation for the universal flower festival with which the world commemorates the close of Lent commences in the hothouses many months before. Very frequently florists are compelled to sacrifice vast quantities of flowers in order to have their plants in condition to supply the tremendous crop of blossoms necessary to supply the Easter demand. The shrewd purveyors of the floral world must also study conditions assiduously, for be it known there are fashions in flowers as in Easter millinery. The lily, they can rest assured, will always have a certain popularity at this season, but as to what class of blossoms will be in vogue for feminine adornment it is often necessary to rely upon speculation.

Roses and orchids have each enjoyed reigns of popularity at that period of the year, when Nature and femininity come forth arrayed in

all the glories of the spring toilet, but the triumphs have not been so oft-repeated as those of the sweet-smelling violet. The dainty purple flower is especially sure of a position of pre-eminence in those years wherein Easter comes early in the season, for the violet is to all intents and purposes a frost flower. Nor is its recurring popularity difficult of explanation even disregarding this circumstance, for the advent of the joyous Sunday which marks the close of winter finds the violet at its prime and all but ready to nod farewell until cold weather comes again. Moreover, as a finishing touch to a street toilet or a housegown there is nothing quite to compare with the violet; and since it is nowadays the attire which makes the Easter, this is an important consideration. Finally, the violet is a daylight flower, not appearing to advantage by artificial illumination; and since sunlight is likewise a requisite of the Easter parade, the tiny posies should constitute the badge of fashion in the show of raiment.

In so far as America is concerned probably the first harbinger of the Easter floral shower makes its appearance in the lily fields of the dream islands of Bermuda months prior to the momentous day. Of late years improved transportation facilities have enabled the shipment of vast quantities of lily buds from Bermuda to the cities along the Atlantic coast during the week before Easter, but for the most part the saints among flowers which grace the holy anniversary are grown in American hothouses from bulbs sent North from Bermuda perhaps nine months before. These transplanted lilies, as they might be termed, are far more costly than those which are shipped in from the sunlit isles; but that there is a tremendous demand for them is evidenced by the fact that one New York agent sells upward of sixty thousand lily blooms each Easter.

For the roses that go to make up her Easter garlands Miss Columbia draws on many floral storehouses, but the greatest of these are located at Madison, New Jersey, and at Roseland, a suburb of Chicago. At the latter place is located the largest rose house in the world, an establishment from which upward of two million blooms are sent out each Easter. The American Beauty rose, which, like her namesake, is amenable to no limitations as to seasons, and which easily maintains its rarity and costliness because of the difficulties of growing it successfully, continues as the aristocrat of the floral galaxy, but other members of the rose family, such as the Golden Gate, which rivals the American Beauty in rarity, and sells for one dollar a blossom, are in some measure dividing its popularity.

The vicinity of Chicago constitutes the center of the carnation realm as concerns not only the United States, but the entire world. At the Western metropolis are located the most extensive carnation gardens and greenhouses on the globe. The carnation beds cover fully twenty acres, and carnations are shipped not only to all parts of this country, but to Europe. The retail flower market in Chicago does not compare with that in New York, but in growing and wholesaling flowers the Queen City of the Lakes has no rival. The prime reason for this is found in the fact that the flat surface of the country around Chicago gives vast area for flower gardens, and the lake bottom soil of mud and sand is extremely favorable for flower growth. In addition there is an immense German population engaged in truck gardening.

The great violet-growing center is Poughkeepsie, New York, but of late years a large number of worn-out farms in Virginia, principally in Albemarle and adjacent counties, have been turned to good account by

their owners, who have turned their attention to violet growing, and great numbers of women have engaged in this pursuit with marked success. Violets never sell at Easter for less than a cent apiece, and inasmuch as the average of a single plant is fifty a season it will be appreciated that the cost of these modest flowers forms quite an item in the expenditure for flowers. In this country the double blossom leads in popularity, a condition being presented the exact opposite of that in Paris, where the single violet is the great Easter flower for corsage wear.

Orchids are used not a little in house ornamentation at Eastertide, but the flowers are so expensive that they are procurable only by the wealthy class. Arbutus and lilacs are in favor whenever the joyous day comes sufficiently late in the spring to permit of their participation in the floral assemblage, and the gay azaleas and mighty hydrangeas are always assured of their places in the churches. In a number of cities it has been customary of late years, whenever the season has been sufficiently far advanced, to secure great

[CONCLUDED ON PAGE 17]



A FIELD OF LILIES, BERMUDA

[CONTINUED FROM LAST ISSUE]

"WELL, I can't tell you all I went through, stunned by this discovery concerning my husband, but Oscar and I arranged a plan to defeat him. I sold everything of value I had of my own, and sent my brother to Japan, keeping Lady Hamilton's jewels in my custody. First I made him write a lot of letters to my husband in the cipher they had agreed upon, telling him he suspected detectives were on his track, and he was fleeing to escape them. These I had posted, through friends, at different parts of the United States, pretending it was a joke I was playing. This kept my husband tracing him from place to place, until the last letter reached him, in which I had made Oscar say he would write no more for a time, for fear of detection. By that time he was far out on the Pacific!

"Then I prepared for escape. I complained to my husband of his mysterious behavior, and said I was tired of being left alone. Whereupon a terrific scene ensued between us, and—he struck me! That finished our relations.

"My husband was so engaged in tracing Oscar, and so in terror that he had escaped with the jewels, that he did nothing to prevent my getting away, and beginning proceedings for divorce; probably he thought it wiser not to offer opposition that would attract public attention to himself. At any rate, in less than a month I had prepared to leave for England, when a woman, whom I had trusted with part of the story of my brother, betrayed me to Faulkney, with whom I later learned she was in love. I had arranged to return to California and sail from there, meet my brother in Japan, and with him return to England and deliver the jewels to Lady Hamilton.

"The only really loyal friend I had to depend on at the time was a lawyer in New York, Ridgeway, who loves me, and it was with his help that I managed the scheme with you. How it was ever discovered I can't understand, unless there was some one spying on me in that boarding house.

"Then, I said breathlessly, 'the jewels were in that trunk you entrusted to me?'

"Yes, they were, she returned. 'It was the only thing I could do, for Ridgeway, who was an intimate friend of Gabriel de Romné, had learned that my husband suspected I had them. He was hunting me in California, but was due in New York just a day before the first ship sailed, and I knew he would manage some way of preventing my getting off, so I thought de Romné, whom he sent to spy upon me, would be hoodwinked by my waiting over for the next ship. But evidently some one must have overheard the whole transaction between you and me, and who that could be, I can't imagine, unless that woman in California who betrayed my confidence followed me to New York and took a room at the same house.

"And now, as I look back, I remember there was a woman there who did not appear for meals, and whom I met two or three times on the landing outside my room. She wore green glasses, and appeared to be an invalid, and I—yes, it must have been she! "Why did you not write at once to Lady Hamilton, and tell her the facts?" I asked; and she replied, as she rose from the table, 'And have my brother ruined for life—he for whom she has done so much! No, I couldn't do that! I thought I could manage it without making him pay such a price for his folly. She was ill for so long, and then came the illness and death of her son, so the theft has not yet been discovered; and if I could only get them to her even now, the whole situation will be saved! Come, let us hurry to this address. I have hopes something may come of it.'

"We got into a handsome and drove down the Strand; but a little way below the number thirty-two, Suzanne—I call her that now—stopped the cab, and we got out and walked up close to the houses on that side of the street. It was in a business part of the city, where heavy drays were blocking the narrow way and drivers screaming to one another.

"When we arrived at number thirty-two I felt confident it was the house I had been imprisoned in during the fog, for there were the three low steps and narrow doorway; and just opposite was a brownstone house with a high flight of steps, and an outside door that could be pushed open.

"I am sure this is the house," I said excitedly, and explained why I thought it was. "Oh, if it only proves to be," she returned, 'my brother and I may be saved!' Then she looked me over carefully. I was still wearing her things, and before leaving the hotel had put on a thick brown veil that must have completely concealed my face. 'I don't think they would know you,' she said, 'but stand back of me, until the door is opened, then follow me in closely.'

"She was obliged to ring twice before the door was cautiously opened the width of a crack, and I saw Madame Patrie's now familiar face peering out. Her eyes spread wide as she recognized Suzanne, and she was on the point of closing the door again, when Suzanne caught hold of it, and said, 'Marie, I want to speak to you. I am in trouble, and I want your help! You promised me once you would be my friend if I ever needed you.'

"Then the door swung back, and Madame Patrie whispered, 'Come in quickly. Who is with you?'

"A friend," said Suzanne, drawing me in after her. 'You need not be afraid of her. She may be trusted.'

"Madame Patrie closed the door noise-

The Strange Adventure of Helen Mortimer

By Maude Roosevelt

lessly and locked it. 'Don't make a sound,' she said, 'They are upstairs.'

"Who are?" asked Suzanne.

"Harry and his friend; he is very ill. Come back here. They cannot hear us here, and never come to this part of the house."

"She led us down the narrow hall to a room back of the stairs, which was in darkness, until she lighted a candle, and revealed it to be an old-time kitchen, which had evidently not been used for years.

"Is your husband ill?" asked Suzanne, seating herself on the chair Madame Patrie—or I should say, Mrs. Morris—dusted off for her, and making me a sign to take another.

"No," returned Mrs. Morris; 'but his friend, Barrington, he—'

"Barrington!" exclaimed Suzanne, and I too was electrified when I heard that name. 'Is he here?'

"Yes. Why? Do you know him?" asked the other, and Suzanne replied, 'I don't know him under that name, but I suspect his real name is de Romné, isn't it?' Mrs. Morris shrugged her shoulders, and said, 'Not that I know, and in fact I am sure it is not, for he has received letters here from a person who signed himself de Romné.'

"Suzanne was staring hard into vacancy. 'Can it be?' she said under her breath; then, turning to Mrs. Morris, asked, 'How long has he been here?'

"He came up first with Harry one evening about two months ago, left his things here and went off. He has been coming off and on ever—"

"What things did he leave?" interrupted Suzanne so anxiously that the woman looked at her suspiciously, and said, 'Oh, I don't know what exactly. I didn't notice what they were.'

"Listen to me, Marie," said Suzanne with slow significance. 'I have been a friend to you, and you know, if I wish, I can give you up to the authorities by—'

"Hush!" whispered the other, turning pale and glancing at me. 'Is this the way you keep your promise?'

"I am desperate," said Suzanne; 'and I shall stop at nothing. I know the shameful business this Barrington is engaged in, and that you and your husband are in league with him.'

"We are not!" returned Mrs. Morris in a like tone. 'We know nothing of his doings. He has offered us a reward of one hundred pounds if we succeed in finding some papers he has lost. This is the only connection we have with him, except that he uses this house as his headquarters.'

"I know a great deal about you," said Suzanne, 'much more than you think. I know you traced a girl named Helen Mortimer to the apartment of Madame Durozzi in Paris two days ago, and robbed her of three valuable necklaces.'

"Mrs. Morris sprang up and made a spring for the door, but Suzanne caught her and said, 'Wait a minute; I am not your enemy,' with a calmness that astonished me, for my blood was frozen with terror, as I thought how easily she could give a signal to those men upstairs, and have us trapped. She had such a wicked expression on her face that I am sure this idea was in her mind."

"I want your aid," continued Suzanne, 'for I am in terrible trouble. You owe me your assistance, Marie, and it will bring no danger to you.'

"Who is this girl?" demanded Mrs. Morris. 'Let her take her veil off. I want to know whom I am with.'

"It is Helen Mortimer," returned Suzanne calmly, 'but she knows nothing of the secret that is between us.'

"Mrs. Morris still stood by the door, as though hesitating. 'Why did you bring her here?' she said. 'If you intend any treachery, you are dealing with the wrong person, Suzanne Manning! In this house I have you at my mercy. I can finish your threats forever.'

"I am not threatening, I am merely supplicating aid," returned Suzanne quietly. 'I tell you, Marie, you can do me a great service, and I come to you as to a friend in need. Sit down and let me tell you.'

"How did you find this house?" asked the other, taking a chair which she had placed between us and the door. 'This girl couldn't possibly have remembered it!'

"No; I shall tell you how we got it, and place in your hands the means of legitimately earning five hundred dollars. I obtained this address from those letters of Barrington's, for the recovery of which he has offered—"

"You have those letters!" exclaimed the woman under her breath.

"Yes; and you shall have them, and in addition I shall give you one hundred pounds more if you help me. Now listen, and I shall tell you everything."

"She told her the whole story she had related to me, save that she omitted all mention of her brother, and made it appear that she wished to get the jewels back merely to return them to her friend Lady Hamilton, whom she feared would believe her implicated in the theft. Mrs. Morris listened attentively, merely uttering little gasps now and then, as certain points were made clear to her.

"Then you are Mrs. Pancoast!" she said when Suzanne finished.

"Yes," replied Suzanne, 'I have gone under that name; and you almost foiled me by getting that letter at the "Times" office. How was it you did not learn from that Mrs. Campbell that she sent me Miss Mortimer's address in a second letter?'

"Mrs. Morris looked puzzled, then said, 'Oh, because I telegraphed her, with answer prepaid, and told her to wire back the address, as I wished to get to Paris at once. But tell me, is Pancoast your real married name, or Barrington?'

"Neither. Why Barrington?'

"Because—I thought—this man upstairs once spoke of the woman whom he called Mrs. Pancoast as his wife."

"His wife!" exclaimed Suzanne in horror. 'Then—then it is he! Good God!'

"Didn't you know it was your husband?" asked Mrs. Morris in amazement.

"No," returned Suzanne in such a tone of pitiable helplessness that my heart ached for her. 'If he is here I shall never be able to—'

"She was interrupted by a man's voice, one that I knew well, calling 'Marie! Marie!'

"Mrs. Morris blew out the candle, whispered 'Keep perfectly still! I shall try not to let him come in here,' and left the room."

"It seemed like hours upon hours that Suzanne and I sat there in the dark. We did not dare to even whisper, for we could hear Morris and his wife talking in the hallway, and every horror imaginable passed through my mind as we waited. I thought how easy it would be for that woman to plan with Morris, to hold us prisoners, get the Barrington letters and the jewels, and perhaps, in order to free herself forever of the danger of being some day betrayed by Suzanne, poison us! It was not likely any one would make investigations to find either of us, for Suzanne's friends all thought she was in America, and I had no one interested in me enough to be excited to action by my disappearance. I wondered if Suzanne were thinking the same thoughts, and longed to speak to her; but I dared not, with them so near."

"At last we heard the front door close, and never was a sound more welcome to me."

"She is coming back," whispered Suzanne, as we heard her steps in the hall. 'I was fearing all sorts of perils.'

"I was about to reply that I was, too, when Mrs. Morris came in. 'Now is our time,' she said. 'Barrington, or whatever his name may be, is in a sort of swoon, and my husband has gone for a doctor.'

"Is he very ill?" asked Suzanne.

"He seems to have some sort of trouble that has partly paralyzed him," returned Madame Patrie. 'We had the doctor last night, and he said he believed a small blood vessel has broken in the brain. It came on suddenly, while I was in Paris. That is why I had to return so quickly. Harry did not know what to do.'

"Does the doctor think it will be fatal?" asked Suzanne.

"No; he says he may live for years, if his diagnosis is correct, but that he will never be capable for very much any more. I don't know what we shall do with him if he continues like this."

"He has a widow sister living here in London," said Suzanne. 'She is very well off, and devoted to him. I shall give you her address; but first I must make sure it is he.'

"Come up now," suggested Mrs. Morris. 'You can get a glimpse of him.'

"They left me in the hall, and went upstairs, saying they would be back in two or three minutes, and I, fearing Morris might come in, crept back into the dark room to wait for them. I can never tell you, girls, how the very atmosphere of that house affected me. It seemed to breathe of crime and mystery, and there was about it a strange moldy smell that had become familiar during my last stay there, and consequently tintured my mind with the gruesome impressions made upon me then."

"They remained up stairs more like a half hour than two or three moments, and after a short time I heard them pass along the upper hall and into a room above the one where I was, where I could hear them moving about carefully, the boards creaking under their weight."

"When at last they rejoined me, Mrs. Morris was carrying a lighted lamp, and I could see by it that both of them had been crying. Suzanne looked awfully sad and white as death. She had a satchel in her hand, and was saying in an undertone, 'You see he could do nothing with them in this country. They would be recognized at once by the pawn brokers, as they are famous throughout England. He was probably waiting here in the hopes of getting those letters, before they fell into my hands, meaning to accomplish the robbery he had planned in Paris before returning to America, and he knew if I had these letters I would know he had done it, and by setting the detectives on the right track, have him caught. Poor wretch, it is pitiable to see him like that—so helpless!'

"He is reaping the wages of sin," returned Mrs. Morris sadly. 'Retribution is bound to come in one form or another, for even if one escapes detection, the strain is so great that physical calamity is likely to be brought on, as in his case. I know Harry and I shall be paying the price soon; I live in hourly terror of it, and we can't accomplish the big hauls that would make it worth while.'

"Nothing would make it worth while," returned Suzanne. 'I tell you, Winston Faulkney has not had a peaceful hour since we first met. His life was one constant menace, and yet the fever of stealing had got so into his blood that he was never content unless planning some new scheme to rob some one in whose house he had been received as a friend. I really think it had become a mania with him, for he seemed to have plenty of money.'

"Yes, there was the crime!" said Mrs. Morris. 'We, on the other hand, are forced to it; we have no other means of maintenance, and I tell you, when one arrives at the stone wall of destitution, with the wolves of hunger and debt at one's heels, morality becomes a myth, and anything seems righteous that promises preservation. Oh, Suzanne, if you will do as you have promised, and use your influence to get Harry a position that will give him a chance in life, you will probably save two souls from destruction. He is a good man at heart, and able, and he is willing to work, but he hasn't the money to wait until something is offered to him; he must get it at once.'

"I shall do what I can," returned Suzanne, 'and I know of a place in Liverpool I am pretty confident I can get for him, and it will offer splendid prospects. The only difficulty is that he will have to be under bond; but I shall see if I can't arrange that.'

"God bless you if you do," said Mrs. Morris, 'for I am well tired of this sort of existence.'

"I longed to ask her about my necklaces, but was afraid to intrude myself in any way into the conversation, since I was not invited to join in it. They talked in the same groove for a few moments longer, then Suzanne said, 'Don't you think you ought to go up to him? Supposing he should wake and need something? Although I despise him, I can't help feeling sorry for him, for I loved him once.'

"Mrs. Morris arose, saying scornfully, 'Ah, yes, so did I love that man who wrecked my life four years ago! There is no telling under what cloven hoof a woman will deliberately throw her heart! I shall go up, and lock you in here, for Harry will be back in a few moments with the doctor, and some evil spirit might lead him here to look for me.'

"Do you think there is any danger of her playing false?" I whispered through the dark, when we heard the key turn in the lock."

"Not the slightest," returned Suzanne. 'The woman is not really bad, and she is very fond of me. I have the jewels, you know.'

"No!" I exclaimed. 'How did you get them?'

"They were locked up in an iron chest in his room, and neither Marie nor her husband knew they were there, as he had cleverly made them believe there was nothing of value in it. We got the key out of his trousers. Poor wretch, he never suspected he was to be stricken down in his tracks like this!'

"Did he know Mrs. Morris in America?" I asked; and she replied, 'No; he knew the man you call Worrendale, I believe, although he may not have expected to see him on the "Cedric." Marie says Worrendale is a dealer in gems, and she went over to New York to smuggle in some diamonds on commission. By the by, I have secured the pawn tickets of those necklaces she took from you. She got eighty pounds on them, which I shall pay off for you, and you can return the necklaces to that man in Paris.'

"My delight was naturally beyond words, but it was dreadful to think of Suzanne paying out such an amount for me, and I said, 'I can't let you do that, Suzanne; it is too much, and I can never hope to be able to repay you.'

"Repay me! It isn't a loan," she said. 'You are to get them out with your own money. I had made up my mind it would cost me at least three thousand dollars before I could secure these jewels; instead, it will cost me only one thousand, for I am going to give you the same reward I give Marie; certainly you helped me much more than she. Out of that you can pay for the necklaces, and have twenty pounds over to get some pretty things to wear up at Avondale, for I want you to look your best up there.'

"Nothing I could say had the slightest effect toward dissuading her from this plan, and as we were obliged to speak low and could not see each other in the dark, I felt handicapped in explaining that I felt already under obligation to her in having squandered what she had first given. She called me silly, and said she felt that nothing she could ever do would repay me for what I had undergone these past months, or for the service I had done her."

"In the midst of this we heard a key grating in the lock of the street door, and then heavy footsteps mounting the stairs; after that we were almost afraid even to whisper, and sat there hearing the faint distant rumble in the streets, and now and then a slight sound from above."

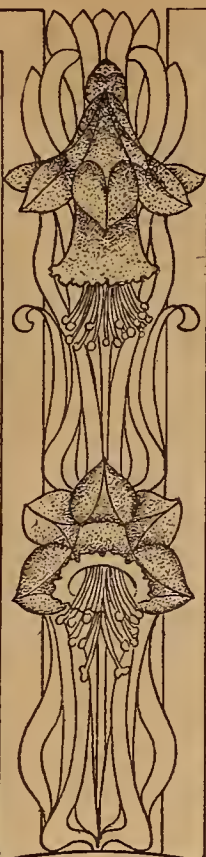
"I wish we had more comfortable chairs," whispered Suzanne, when what seemed like an hour had passed."

[TO BE CONCLUDED IN NEXT ISSUE]

Another New Serial—"Mill Owners," by Georgian Grier, will be started in the April 10th issue of Farm and Fireside. See that your subscription is paid up so that you will be sure to get the paper and thus have opportunity to read the clever story.



DAFFODILS



AN EASTER DECORATION



AN ARMFUL OF ROSES

[CONTINUED FROM PAGE 15]
branches of apple bloom and utilize them in the decoration of residences, stores and offices.

However, the work of the growers is one of preparation for the great Easter floral parade, and it is the retailers and the flower venders of the street who in plying their picturesque traffic present one of the most attractive phases of the Easter festival. For days before Easter these retailers have as scant opportunity for sleep as does the toy merchant in the interim before Christmas. Be the flower mart a small stall at a street crossing or a fashionable store on a prominent thoroughfare, it is necessary that its conductors be on duty long before daylight directing the transfer of the flowers from the wholesale establishments or receiving stations and freshening and arranging the blossoms so that they may present their best appearance for the benefit of the throng of buyers who will come later in the day.

The prominent florists with pretentious establishments as a rule act as agents for, or have a regular connection with, growers in the country, or mayhap such a firm has its own flower farm in the suburbs; but the smaller dealers and the curbside merchants must make up their stock each day from the offerings of the individual flower growers, who bring their wares to the city in wagons, possibly traveling almost all night to make the journey. This wholesale flower market, with its dozens of bloom-laden wagons, is a most attractive spectacle. It opens about four o'clock in the morning, and the sale is practically over two hours later.

The flower venders form a distinct and most interesting class of the population of our great cities. Perhaps the most picturesque figure in this branch of trade is "Flower Mary," who annually sells more than one hundred thousand roses and carnations in the office buildings of Chicago and on the boats in the harbor, and who is worth fifty thousand dollars.

A very interesting phase of the Easter flower trade, and one which is found alike in large and small cities in all parts of the country, is the rental of palms and flowering plants for the decoration of churches. Not infrequently plants suitable for such utilization can be rented for a few days for a sum equal to half their value, and the supply is never equal to the demand at Eastertime. The visions of beauty presented by the great American flower markets at Eastertide have worthy rivals beyond the seas. London, Paris, Berlin and the other flower-loving cities of Europe depend for their Easter bouquets on the vast Eden of the French Riviera, where miles upon miles of roses and violets are raised to supply the flower marts of Great Britain and the Continent.

However, the greatest flower mart in the world is the famous Covent Garden Market in London, and to catch a peep of this center of activity at Eastertime is a revelation. This flower headquarters for the world's greatest city was established about three quarters of a century ago in a most modest manner. Now it occupies a vast glass-roofed brick building. This immense structure is divided into hundreds of separate little stalls, each presided over by a man or woman, but viewed from one of the entrances the hall appears to be heaped up ten feet high with one vast mass of bloom.

The hundreds of dealers who comprise the personnel of the London flower market begin work between midnight and one o'clock in the morning, and each has his stock carefully arranged before the market opens for business at four o'clock in the morning. The flowers which are grown in the vicinity of London are brought

in by wagons, while the blossoms imported from Scotland and from France arrive either by boat or by train.

EASTER FESTIVAL THE WORLD O'ER

The Easter festival, commemorating the resurrection and ascension of the Christ, is a movable feast, really dependent upon the time of the ancient Jewish passover. According to our present way of reckoning, it comes on the first Sunday after the full moon occurring on or after the twenty-first day of March. Upon Easter Day is dependent a long series of dates in the Church calendar, from Ash Wednesday to Trinity Sunday. Easter observances formerly continued over a period of eight days, but have now been reduced to one. In England Easter Monday is one of the annual holidays. There were many pagan feasts in celebration of the spring time. The Greeks and Romans expressed their joy at the return of the sun, at the reawakening of Nature. They held many festivals, processions and sacrifices in honor of the various gods who presided over this season. The Church fathers who sought to give a Christian meaning to all these pagan customs were quick to realize the possibilities of these festivals and to make use of them. In their pagan meaning they had a very obvious similarity to the newer Christian ideas, and they were very easily merged into the Easter festivities and given new significance.

QUEER CUSTOMS OBSERVED

It is in Catholic countries that Easter is most celebrated, and therefore in Catholic Spain and her off-spring we find the queerest Easter customs, writes Laura B. Starr. The whole people join in the festival which commemorates the resurrection. There was formerly a custom by which the devout scourged themselves in public, and sprinkled the pavements with their blood, but this no longer obtains. The ceremonies of Easter Sunday are attended with great magnificence. The day is ushered in with the booming of cannon; churches are splendidly decorated, and high mass is celebrated in the morning. Seville is especially noted for her processions and ceremonies. Fireworks are set off around the cathedral, and images of Judas Iscariot

are shot at by infantry soldiers. There is a great procession on Easter morning. Sacred figures are borne through the streets on litters, strewn with flowers and thickly set with candle lights. These figures are dressed as richly as possible, and the floats or platforms are so heavy that twenty-five or thirty men are needed to carry them. There are various orders that take part in these processions, and the costumes are curious and strangely fascinating. The Nazarenes wear blue capes and peaked caps towering high above the head and reaching down to the shoulders, with holes cut for the eyes. They carry a float with an image of the crucified Christ. Waves of incense fill the air as the procession moves through the streets, followed by members of "Our Lady of the Angels" order, who wear black with purple peaked caps; and with these there is a choir of little children in curious and interesting costumes.

The Azores and St. Michael have curious processions corresponding to those in Spain. The yearly procession of the "Holy Christ" is most imposing. The "Holy Christ" is a rudely fashioned image of wood, robed in splendor and studded with jewels of great value. It was the gift of a pope to the nuns of a now extinct convent, and has for centuries been an object of veneration for the credulous multitude, who credit it with many amazing miracles. This procession takes place the fifth Sunday after Easter.

Among the many lenten processions in various parts of the world there is none more impressive than the Processio Dos Passos, which takes place in Madeira on the fourth Sunday in Lent. It is a very aristocratic one, inasmuch as members of the old families take part in it. At this time a large number of ladies perform their penitential vows, which is usually to walk barefoot in the procession.

Mexico is another of the Spanish countries which still retains many of the century-old customs. A native Mexican Easter is a curious exhibition of ignorance and superstition. The people delight in processions and in weird ceremonies. At various places they enact passion plays which are very real to the Indians. The characters in the play carry out their parts with great realism.

Until quite recently it was a common occurrence for a man to volunteer to be crucified, and actually to allow his bigoted countrymen to perform the awful act. The volunteer was a criminal, who, if he came out of the ordeal alive, received a full and free pardon. It not infrequently happened that the man was killed, for he was made to ride with his face toward the tail of a mule, while the howling mob was privileged to beat him with sticks and stones. Native Indian women still do penance, such as wearing a crown of thorns, and kneeling among her people in expiation of some sin. Undoubtedly, however, the most curious custom which survives in Mexico is that of the hanging of Judas. For days before Easter merchants display in the streets small and large wooden images of the Iscariot, and these are bought in great quantities by the natives, who hang Judas in a realistic manner and with much ceremony at Easter time.

It may be interesting to note that in our own Philippines the natives celebrate Easter Day in gorgeous fashion. Processions headed by bands of music are held in the morning Easter Sunday, and the remainder of the day is given over to fencing and games, preferably cock fighting, and other sports to which the Spaniards are partial.



Bates. R. F. D.

BY BERTA OGDEN



LEESCOM came down the lane in his shirt sleeves, a fat, rather vacuous smile on his broad face. The world went well with Leescom.

The mail delivery wagon was just rounding the next hill, so he waited by his box, a letter in his hand.

"Mornin', Bates," he said, as the wagon curved in and stopped at his box. "How's weather predictions?"

"Bad," replied Bates, exchanging a paper for the letter. "Signals all out. Regular blizzard coming in from the Northwest. Mercury down to forty below in some places, and predictions for ten below here."

Leescom laughed, unbelievably.

"Your weather reports are generally pretty close," he said, "but I guess it's off this time. Why, look here," with a comprehensive sweep of his hand over earth and sky, "thermometer high's seventy, with birds singin' an' not a speck in the sky. Course, 'tain't the end of March yet, an' there's bound to be some more cold. But ten below—pshaw! My almanac's marked 'Expect—fair—weather—'bout—this—time,' an' it runs down over ten whole days. That brings it into April. I'm willin' to go by your predictions when they're reasonable, but when they ain't I'll fall back on the old almanac. That's stood by me a good many years. I've been plowin' the last week, an' this mornin' I've got the garden ready to set out early cabbages an' onion sets. I'm goin' right back to 'em now. Ten below—huh! I've lived 'round here fifteen years, an' have never seen it over six below in the dead of winter."

"Well, I'd put off the cabbages and onions a few days longer if I were you," warned Bates, as he took up his reins. "Maybe the cold wave'll moderate some before it gets here, and maybe it won't. But your cabbages will be just as well off in the cold frame, and the onion sets in the cellar. They ain't apt to grow very much the next few days."

"When are you countin' on sendin' this cold wave?" called Leescom jocosely, as the wagon moved away. "An' is it to be mixed with rain or snow, or with solid ice all blocked out for the ice house?"

"Predictions say heavy snow storm, terrific wind, and due here some time to-night," answered the mail carrier.

Leescom looked after him with a grin, which, however, speedily changed to an expression of anxiety. Weather-bureau predictions were not things to be treated lightly, he well knew. Then he seemed to think of something else, for his hands went suddenly to his mouth in a loud bellow.

"Bates! O-oh, Bates! Hold up, I forgot suthin'."

The wagon came to a stop, and he hurried after it as fast as his heavy body would permit.

"Say, B-Bates," he panted, "I came out mostly to speak 'bout that note, but your weather talk knocked it all out my head."

Bates looked surprised.

"I thought the note was all arranged," he said. "It was to be extended three months, you know. You said you were perfectly willing."

"Yes, yes, that was all right; but—well," desperately, "I let the note go, an' that's all there is to it. I had use for some money unexpectedly, an'—an' I thought I'd better tell you so you could look out for its comin' due."

"Who to?"

"Cheesick."

Bates started, his eyes flashing. Cheesick was a merchant in town, with an unenviable reputation. It was said that he never did business with a man without maneuvering to get the fat end of the deal, with a commission on the lean end besides. Bates had never dealt with him much, but they had had words. His face grew stern.

"Why did you do this, Mr. Leescom," he demanded, "without first coming to me? When I bought the land from you for a thousand dollars you said you had no use for the money, and would wait as long as I wished. However, I raised you five hundred, and have paid you three hundred since. I had the other two and the interest for you last week;

but my brother was ill and needing help, so I came and asked if you were perfectly willing to wait another six months. You answered that you would rather have the money on interest than be paid; now it seems you went almost immediately and sold this note to Mr. Cheesick. Why? He is said to never buy anything without a profit, and you certainly had no reason to offer it at a discount."

Mr. Leescom coughed uneasily.

"No, I didn't sell at no discount," he declared; "fact is, Mr. Cheesick paid me a premium—two per cent."

"A premium—Mr. Cheesick?" incredulously. "I don't understand. And anyway, how did he come to know you held my note?"

"Well, you see," apologetically, "he was out this way yesterday talkin' over things. He'd been to Lindenwood's place, joinin' me. Seems to think he'll be a close neighbor before long, so he's 'round gettin' friendly."

"Lindenwood doesn't want to sell," sharply.

"No, no, course not. It's Lindenwood's gal, Mercy. They'll make a fine couple," with a grin, and looking at Bates through

by a winding lane. Long before he got to it Bates saw a girl standing by the box, and the sight momentarily drove the anxiety from his face. Not so very long ago she had often waited there, when the weather was good, and he had remained as long as his duty permitted, and talked with her. But of late, even on fair days, he had seen nothing of her. The Lindenwood mail had been deposited early in the morning, and the indicator raised, and he had mechanically exchanged the mail he brought for that found in the box, and driven on. Now he urged his horse a little faster.

"Good-morning, Mercy," he cried cheerily, as he took her mail from its pocket and sprang from the wagon. "Isn't it a fine day?"

"Yes, it is very nice," the girl answered. But she spoke coldly, and her face lacked its usual animation. As he handed her the mail Bates noticed that she did not look at him; her eyes were averted, gazing somewhere out across the fields.

"What's the matter, Mercy?" he asked anxiously. "Are you ill?"

"No, I'm as well as usual."



"As Cheesick rose, coughing and sputtering, he thrust him back into the water, once, twice, thrice"

the corners of his eyes. "I guess it's pretty much fixed; he seemed to hint that way. An' he said he counted on givin' up business an' comin' out here to be a gentleman farmer. I guess he'll be a good neighbor, for we need more money in the country. Oh, come, come," at the look on Bates's face, "don't go to gettin' mad now. What difference does it make whether the note's in my hands or Cheesick's? 'Tain't due till day after to-morrow, an' I guess you'll be able to fix it up all right with him. You see, he knew 'bout you buyin' land from me, an' he asked sort of casual if it had been paid for. That led to my tellin' 'bout the note. Then he said he'd got some money he'd like to put out at interest, an' he'd buy the note an' give me two per cent. Of course I let it go. It was just a business trade, an' nothin' for anybody to git mad over," in an injured tone.

"No, I suppose not—from your point of view. Well, I must be getting on."

Lindenwood's house was half a mile farther on, reached from the main road

"But something's the matter," he persisted. "I never saw you look or act like this before. Is it anything I—Oh," as though with sudden enlightenment, "is it because I didn't come out that evening last week, as I promised? My brother was taken ill that day, and I remained with him all night, and have been with him part of every night since. I thought you would understand. I intended to explain the next morning, when I brought the mail, but you wasn't here; and I haven't seen you since until now. I shall have more time after to-day, for I left my brother much better this morning, and the doctor says he will improve steadily now. Suppose I come out to-morrow evening—Wednesday?"

She shook her head, her eyes coming around to his now, as he thought, indifferently.

"I have an engagement for to-morrow evening. But please fill this out as soon as you can," handing him a money order; "I am in a hurry. I had been waiting here ten minutes when you came."

"Yes, I was detained by Leescom." He

filled out the money order rapidly. "Well, say the next night—Thursday?"

"It won't be worth while—any time," she answered impatiently.

Bates finished the order and handed it to her, then changed the ten-dollar bill she gave him. But as he gave her the difference he grasped the extended hand firmly.

"Now what's the matter, Mercy?" he demanded. "It's my right to know."

"Nothing that you don't know already," she replied, her eyes beginning to flash. "Let go my hand, sir!"

He released it.

"I'm sorry, Mercy," he said simply. "I asked only what I had a right to ask, and I thought you would be fair."

"Well, then," she blazed, "you haven't been doing well lately. You get in debt, and don't pay, and you visit saloons, and I don't know what all. As my father says, quiet folks who pretend to be nice, and do such things, are worse than those who make no pretensions and do them openly."

"Get in debt and don't pay," repeated Bates, looking puzzled. "I never did a thing like that in all my life. I don't owe a man a cent—except in one case, where I've bought some land and haven't quite finished paying for it. And as to saloons, I've never bought—Oh, yes," his face broadening into a smile, "I did go into one the other day after a quart of brandy for my brother. But it was by the doctor's orders."

"You've been in them more than once," sharply. "You were seen—"

"Twice," he smiled. "You've got a pretty good scout Mercy. I went into one after alcohol to bathe Tom. I don't know when I've been into a saloon before that, though," sturdily, "I shouldn't hesitate to any time if there was need. I don't drink myself, but that ain't saying I don't think liquor's good for lots of people, especially ailing ones. I'd just as soon go on an errand into a saloon as into a grocery store. It doesn't hurt me, and I'm not trying to run the world after my ideas. I don't know enough, for one thing. Any more charges against me, Mercy?"

The girl's head was high, her eyes flashing, but it was a flashing of that peculiar luster which has tears behind it.

"Plenty," she answered shortly. "Mr. Cheesick says—"

She stopped, biting her lips and flushing a little.

Bates stepped quietly into his wagon. "Oh, Cheesick," he said; "I've already heard some things about him this morning. I haven't anything more to say. I don't care to balance my word against his."

He had two letters in his hand which she had given him. As he deposited them with the outgoing mail they chanced to fall with faces up, and involuntarily he noticed the superscriptions. One was the firm to which he had made out the money order; the other was to Alonzo Cheesick. The letter given him by Leescom had also been to Alonzo Cheesick. He wondered what they contained.

As he tightened the reins he remembered a voluntary duty which had devolved upon him gradually, but which was regarded by some of the farmers as of equal importance with their mail. He was their weather forecaster from day to day, as well as the deliverer of their letters and papers. He leaned from his wagon.

"Mercy," he called, "please tell your folks the thermometer will probably fall to zero or below to-night, with heavy snow. The cattle and sheep had better be looked after and the poultry given good shelter. The indications are that it will be much the worse storm of the winter."

Mercy had started up the lane. She made a slight inclination of her head that she had heard, but did not turn.

The principal outgoing mail in the afternoon left the post office at three o'clock, and the carriers were supposed to complete their rounds in time to have their letters and papers assorted and the stamps canceled for this mail. Usually they were back by two, and then spent an hour or more in the post office helping with the mail and arranging as much

as they could of the next day's delivery, in order to facilitate work in the morning.

That afternoon, as Bates was arranging and tying packages of mail, a letter was thrust toward him through the window.

"Hello there, Bates, put a stamp on this letter, will you? And say, let me have fifty cents' worth of twos while you're about it."

Bates affixed the stamp and passed out the required number, dropping the change into the money drawer, without looking up. He knew that Cheesick was grinning at him through the window; indeed, he believed the letter had been thrust in to him solely that he should see the address while he was affixing the stamp. "You'll take it out all right in the morning?"

"Of course," shortly; "that is my duty."

"Well, I thought I'd better ask. I don't want any carelessness, you know. Take it right to the house?"

"Certainly not. You know very well our rules don't allow us to drive from the main road."

"Yes, that's so. Well, put it in the box. Some of 'em will be out during the day. You see," confidentially, "I'm going there in the evening to call on Mercy, and this letter's something particular I want her to know. By the way, did Leescom speak to you this morning about the note? Said he would."

Bates finished tying the package he was at work upon, placed it with the outgoing mail, and reached for another little pile of letters to tie. He did not look up nor speak. He did not dare to, for fear of what was trembling on his lips and showing in his eyes. He was on duty now.

"Yes," he said slowly, "Mr. Leescom spoke of the note. I am coming around to the store to see you about it just as soon as I finish here."

"Well, so do," affably. "And I want to talk with you about the land out that way. I'm thinking some of turning farmer myself. Let's see, your tract joins Lindenwood's, I think, cornering on his land and Leescom's. Maybe we can make a trade."

Bates made no answer.

Twenty minutes later he finished his duties at the post office, and from there went directly to Cheesick's store. No customers happened to be in. Cheesick was sitting upon his counter, paring his nails.

"Hello," he called, as Bates appeared, "glad to see you in my store. You don't often come. Most all the folks out your way are my customers, but I don't remember that you ever bought much."

"Not a thing since I traded you a calf for a suit of clothes," said Bates dryly. "You remember I brought back the suit because it was shopworn and ready to drop to pieces, and you refused to accept it because you said it had been a trade. Then you sent me a bill of two dollars on account of beef going down the day I brought the calf, you said. As I didn't take the suit, that would have left me a calf and two dollars behind, provided I had paid the bill, which I didn't. But I'm here to see about the note."

"Yes, yes, of course," sliding from the counter and showing his teeth a little. "Ready to pay it already, before it's due? I don't see how you mail carriers handle so much money on fifty dollars a month. Only a few days ago you let your brother have over two hundred to meet some crowding bills, I understand, and now you're bringing me as much more. I'm going to give up storekeeping and turn mail carrier. It's the only way to get rich."

Bates' hand clinched a little, but he managed to keep his voice steady.

"I'm not here to pay the note, and won't even be able to pay it when due," he said. "I want you to extend it another six months, as Leescom agreed to do. I will pay you double interest for the accommodation."

Cheesick grinned. "That wouldn't be legal," he objected. "Of course I couldn't think of double rates, though it's very liberal of you. No, the only thing is to meet the note when it's due. I suppose you could borrow the money," with a trace of anxiety appearing in his voice.

Bates shook his head.

"I'm afraid not," he answered. "Money is very scarce just now, and I doubt if there's more than two or three men in town who have even that much unemployed. With more time I could arrange it, but I supposed the matter all settled."

Cheesick was again grinning. "Oh, well, it doesn't matter," he said, with assumed indifference; "the land's a pretty piece and plenty good for the note. Of

course I'd like the money to use in my business, but I guess the land will be fair value. Leescom had a mortgage to secure the note, and you understand he turned the whole thing over to me. It'll cost a little to foreclose, of course, but I won't mind that."

"You'll foreclose, then?"

"Why, it's the only thing I can do," opening his eyes as though in surprise. "It's business. But don't you worry over it, Bates," consolingly; "it was bound to come to you sooner or later. Visiting saloons and not paying bills couldn't lead to anything else. You've got only yourself to blame."

Bates made a quick step forward.

"That's another thing I intended to see you about, after the note was settled," he said sternly. "You've been telling lies about me to Mercy, and perhaps to others. I suppose that two dollars you couldn't cheat me out of was the debt I wouldn't pay, and—"

"Yes, I told that, I suppose, and a few other things, but not half so much as I might," tantalized Cheesick. "It was a clear duty, you know, for Mercy is a nice girl. She said—"

"Stop!" thundered Bates. "Never mind what she said. We will leave her name out."

"Mercy said," imperturbably, "that she used to have a good deal of respect for you, but that of late—"

The two men were of about the same height and weight, but there the similarity ended; what was brawn and whipcord-like muscles in Bates, made by constant hard work and outdoor exposure, was mostly flesh in Cheesick, induced by his inactive life behind the counter. Already he was beginning to show a double chin.

Evidently he had been trying to provoke Bates to anger, though not to actual violence, for as the mail carrier sprang forward, he retreated toward the opening which led behind the counter. Perhaps he thought that some demonstration on Bates' part might further his own interests at the Lindenwood farm; possibly he considered himself as physically the mail carrier's equal. In either case he was speedily undeceived.

Before the last sentence was finished Bates' grasp was upon his shoulder, swinging him back toward the center of the floor. In vain Cheesick struggled and swore and threatened. Bates was oblivious of consequences now. One hand was still upon Cheesick's shoulder, where it had closed like a vise; the other was like a steel band around his waist. Sometimes the storekeeper's feet struck his own floor, sometimes the counter, sometimes the wall, knocking down boxes or displayed goods. But irresistibly, little by little, he was dragged and swung across the room toward the door. By the time they reached there Cheesick's breath was about gone, and he was almost passive in the mail carrier's grasp.

Then through the doorway and down the steps, still struggling and panting, and across the sidewalk to the horse trough, where Bates, suddenly exerting all his strength, lifted his opponent bodily and flung him at full length into the water. A broom was standing near which had been used to sweep the sidewalk. Bates caught up this, and as Cheesick rose coughing and sputtering, he thrust him back into the water, once, twice, thrice.

"There, you're washed clean outside, at any rate," he said finally. "But I'm afraid the meanness is too deep in for broom and water. Now crawl out and go into the store and dry yourself, and mind, don't ever let me hear of you making free with Mercy Lindenwood's name again," and oblivious of the people who were beginning to gather, Bates dropped the broom and strode away.

At sunset that night the mercury had only dropped to sixty, and many of those who had gazed anxiously at the prediction on the bulletin board began to look wise and say they guessed the weather-bureau man had made a slip this time, or else concluded to send the storm around by another route.

At nine o'clock it had fallen but two degrees, and at twelve but three more. Most people left their chamber windows open.

Between twelve and one, however, the stars in the northwest began to grow dim and obscure, and the mercury fell twenty degrees. By three it had fallen twenty more, and the whole sky was overcast. At daylight it commenced to snow.

If mails were on time the carriers left the post office at seven o'clock, but if the trains were late they could be held until eight. At that hour the regulations said they must be released.

This morning the through train was three quarters of an hour late, and the carriers were detained until a quarter of eight. It was then four below zero,

with the snow whirling in blinding sheets before a fifty-mile gale. When Bates struck his route the snow was three inches deep on a level, and drifting in depressions and wherever the wind did not have a clear sweep. Bates urged his horse—as rapidly as possible, for he realized that this was only the beginning, and it was ten miles around his route.

For the first five or six miles it was not bad, though he found some drifts of two feet or more which it was almost impossible for his horse to pull through. The worst of these was just before reaching the Lindenwood lane. At this point he was obliged to alight from the wagon and apply his own strength to the wheels.

On the return road of his route it was much worse, for every moment the snow was becoming deeper and the drifts more formidable. He did not try to ride now; it was as much as his horse could do to pull itself and the wagon through the snow. Two miles from town he decided it was cruelty to the animal to expose it to the blizzard any longer, and he turned into the barn of a farmer who lived on the road, and stabled it for the night. From there he walked to town, depositing and taking up mail at the boxes as he passed. It was dark when he reached the post office, and eight below zero.

None of the other carriers had returned, though one of them had sent a message over the only telephone wire which was not down. It stated that this carrier's wagon had stuck in a drift and could not be extricated, that his own ears were frozen, and that he had stopped at a farm house, where he would remain until the storm moderated enough for him to complete his route.

As he was about to leave the post office, after arranging his mail, Bates met the village livery man coming in. His face looked troubled.

"Hello, Bates," he said, "you're just the man I'm looking for. Seen anything of Cheesick?"

"Not since yesterday afternoon."

In spite of its anxiety the face relaxed into a grin.

"Oh, yes, I heard about that. But I mean to-day, out on your route. He started for Lindenwood's several hours ago. Told my stable boy it was going to be a bad night, and that he'd better start early before it got to its worst."

"No, I haven't seen him. I go out that way in the morning, and come back by the other road in the afternoon."

"Yes, that's so. Well, I don't know what to do. If 'twas anybody but Cheesick I wouldn't think so much of it; but he don't know a thing about horses, and but precious little about storms. He came right out of his warm store, with his big fur overcoat covering him all up, and fur over his head and face and hands. The boy said he couldn't see anything but eyes and a line of white frost puffing through a hole about where the nose ought to be. Cold couldn't have got in anywhere to nip him a warning before he started. If I'd been in the stable I wouldn't have given him a horse, but the boy didn't know."

"Well, perhaps he got through all right." But there was grave doubt in Bates' voice.

"Perhaps," with even more doubt. "But two farmers out that way started home an hour ago, and they just came back. They said the drifts were so bad they couldn't make it. And Cheesick was only an hour ahead of them. If they couldn't get through, what would he do?"

"I expect I'd better go out and look for him," said Bates.

"You?" incredulously. "Man alive! you couldn't do anything in this storm. If the farmers couldn't get their horses through, you can't."

"I shall not take a horse," returned Bates. "I can do better on foot, for then I can go around the drifts and crawl along fences, and often strike across the higher ground where the wind has kept the snow down. It will not be so dark but I can examine the road, for the snow itself will give some light."

"But you can't do it," his anxiety for the horse changing to anxiety for Bates. "Four miles through this storm to Lindenwood's! It's suicide, man. Cheesick will be all right, I think. There were heavy robes in the carriage, and they and his own wraps will bunk him in warm, even out in a storm. It was the horse I was thinking of, but a horse isn't worth risking a man's life for."

"I don't agree with you there," emphatically. "I'd risk my life for my horse any time, if there was need. And I think Cheesick wants looking after. Eight degrees below zero and this wind will cut through any amount of furs. I've an idea he's in the drift just this side of Lindenwood's. I had difficulty in making that even in the forenoon."

"Well, you'll take somebody along with you?" in a troubled voice.

"No," quickly, "I'd rather go alone. You see, I'm over the road every day, and know all its crooks and turns and how to take advantage of things. If I have companions I'm pretty sure to be delayed more or less looking after them, and in this trip I shall need every ounce of strength and every second of time. It will not be child's play. But," straightening himself to his full height and squaring his shoulders unconsciously, "it's a sort of thing I rather like. Somehow it makes me feel like a man. I shall get through all right; you needn't worry about that. And I wouldn't wonder if your horse reaches home before night. If he's in the drift, I shall release him and start him for home. His instinct will take him to his stable."

Bates never said much about that trip. He was too modest. But one thing and another came out from time to time, and were pieced together, until at length it became a story that was told at winter firesides when the wind whistled and the snow banked up into drifts upon the doorsteps. An old woman whose house was directly upon the road declared she saw him creeping along the top rail of a fence, like a cat, because the snow would have been up to his shoulders; and two boys who were daring each to cross the road confessed they had seen what appeared to be a snow man pushing through a drift up to his waist; and that when he spoke they were so scared they had skurried into the house. And there were other things, too many to repeat, which went toward making up the story.

The livery man slept in an office in his stable, and that night he was awakened by a weary whinny in which was unmistakable gladness. When he rose and went into the barn, there was the horse Cheesick had taken, with snow still clinging to its body and in its mane. While he was preparing a generous allowance of cut feed and meal he heard his office clock striking twelve.

It was an hour later than that when Lindenwood was awakened by a fumbling at the door nearest the main road. For some time he lay listening, then dressed and went down. When he opened the door two men fell in. Cheesick was the first to speak, and told a rambling story about being carried on the shoulders of a man through big drifts and over fences. It was less than half a mile, but they had been four hours in making it.

Bates slept all that night and most of the next day; then he woke suddenly, and rose, declaring he was all right. As soon as he had eaten he insisted on returning to town. The next day he delivered his mail as usual. By that time it had ceased to snow, and the surface was crusted over hard enough to bear his weight.

A few days later it turned warm again, but it was a week before the lane was sufficiently clear and dry for Mercy to walk out to her box.

Bates always shot a quick glance toward that particular corner as soon as it came in sight. This morning he saw her the very instant his eyes rose over the level of the next hill. But he did not urge his horse forward.

"Good-morning," he said, as he turned his wagon in toward the box and sprang out. "We are having fine weather again."

"Yes, indeed," stepping forward, with hands outstretched. "I want to thank you, Mr. Bates. It was fine."

He smiled deprecatingly.

"Please don't," he protested. "It was only what anybody would have done—or ought to do. I was glad to help him to your house. But people talk too much about such things. A dozen have mentioned it already."

"Oh, it wasn't that I meant," her eyes snapping. "I knew you would do such things. It's about the horse trough. I've just heard about it, and the reason why he needed the bath. Papa liked it, too, and said it was a good thing."

Bates stared.

"But I—I thought it was all settled between you," he stammered. "Cheesick himself told me so this morning; and he said he would renew my note for six months at the double rate of interest I offered."

Mercy laughed outright. "Just like him," she declared. "He told us he was going to do something handsome for you. And he was right about it being settled between us—it always was, as far as I was concerned—only I—I was afraid some of the things he said might be true. I ought to have known better, Harry."

Not until he had nearly completed his route did Bates remember he had not given Mercy her mail. It was the first mistake of the kind he had ever made. But he took it out to her that evening.

[THE END]

THE copper cash used in China is the cheapest and most cumbersome money used anywhere in the world. Travelers penetrating into the interior of the country frequently have to provide an extra mule to carry their money. The necessity for this provision may be better understood when it is stated that the equivalent of an American dollar in copper cash weighs sixteen pounds.

One can have no conception of the great size of Russia until he begins to travel over it and familiarizes himself with the maps and time tables. The domain of the Czar contains about one seventh of all the land in the world. It is surpassed only by the British Empire. The extraordinary size of the country is shown by the dimensions of the forty-nine provinces into which it is divided. We find that even the smallest of these is considerably larger than the state of Maryland, that over half of them are larger than South Carolina, and that one of them comprises more territory than there is in the great state of Texas.

The distribution of the population throughout Russia is just the reverse of what it should be. The district that outranks Texas in size has fewer people than there are in the three principal cities of the Lone Star State, while two of the smaller sections, neither of which is larger than Maryland, have more people than there are in New York and Chicago.

There are tribes of savages in the jungles of India that are so little removed from animals that the mothers deposit their sucking babes in holes in the ground while they scour the forest for food. The offspring of these aborigines are exposed to all creatures that might prey upon them, even as the young of the bear or the panther or any other animal, and are exposed to sun and wind and rain like all other little beasts of the forest.

Almost every day brings forth new evidence to show that the French are a most ingenious people. Not long ago a clever Frenchman astounded the automobile world by inventing a pair of motor skates, and now another countryman of his goes him one better by constructing a clock that will keep perfect time, yet which is so tiny that he wears it as a stud in his shirt front.

If you ever have occasion to frequent Chinese waters you must be certain that you know how to swim. This is necessary, because no Chinaman will rescue a drowning person. The reason for this is that the Celestials believe that if they save a person's life, the individual whom they rescue may thereafter lawfully depend upon them for support.

The Russian carpenter is a peculiar genius whose principal tool is an ax. Although his skill is confined mostly to this one implement, he is famous for his cleverness with it. As far back as the Philadelphia Exposition the carpenters from the Land of the Czar created a sensation among other craftsmen when they reported at the site where the Russian building was to be constructed, with no tools other than axes. To the surprise of the onlookers, they not only constructed the house in first-class style, but made beautiful decorations, which were almost like lace in their fineness. Yet skilled carpenters in Russia earn only seventy-five cents a day.

A good example of the hocus-pocus that the barbarian priests of Asia practise on their fanatic dupes is afforded by the ceremony whereby the grand Llama of Tibet pretends to gain eternal life. When this worthy approaches death, the priests choose a healthy child three or four years old, into whose body they pretend to cause the soul of the grand Llama to migrate. Thus the spirit, although occasionally clothed in a new body, remains among the people interminably. The Buddhists believe implicitly in this re-birth.

The largest newspaper in the world is published in China. Each sheet of this gigantic paper is as large as a barn door. When the owners decided to modernize their publication by substituting smaller pages, the subscribers protested so stoutly that the innovation had to be abandoned. The readers' objection to the contemplated change was because the new form was not so convenient for wrapping bundles, and did not cover enough surface when spread out on the floor to sleep on.

The light regard which Russian men have for the gentler sex is indicated by an old Muscovite adage, which says: "The hair of woman is long, but her mind is short." And there is a proverb to the effect that seven females have but one soul.



Notes from a Traveler's Diary

By Frederic J. Haskin

The only windows in many of the huts of the poor people in Ireland are holes in the roof near the chimney. The absence of the usual apertures to admit light and air is due to the custom of taxing them, under the title of "hearth money." A fatal epidemic of typhoid

fever, which carried off thousands of unfortunates, was said to have been occasioned from breathing impure air. Times were hard, and the inhabitants were forced to dispense with ventilation in order to avoid having to pay the tax.

One little point which escaped the chroniclers of the great naval battle between Japan and Russia was that Rodjesvsky used a white table cloth as a flag of surrender. The fact that he was not supplied with an ensign of the right color would make it appear that the Russian admiral did not anticipate the probability of meeting defeat at the end of his sensational voyage to the East.

Visitors to the island of Ceylon notice certain individuals whose style of dress leaves them nude above the waist. Few people know that these queer folk are descendants of an ancient tribe of hunters who once became enraged at the Kandian king, and furnished his larder with human flesh, instead of venison. His Majesty punished them by decreeing that they and all their descendants should forever after suffer

the humiliation of going among their fellows half dressed.

According to an old custom, a Russian bridegroom on the day of his marriage should put into one of his boots a sweet meat or a trinket, and into the other a

whip. After the ceremony the wife removes one of the boots. If she happens upon the one which contains the trinket, it is considered an omen of a happy life for her; but if she selects the boot containing the whip, it is regarded as an extremely unfortunate sign, and she is given a bride lash as an indication of what she may expect in future.

The game of cricket has become so popular in the island of Samoa that it has about demoralized the natives. The islanders have modified the regulation way of playing the game as established by the English, until there are twenty, thirty, and even fifty players on a side. The inhabitants of one whole village will often be pitted against the residents of a neighboring

town. When one of these community clashes occurs, the game often continues until the food supply gives out. Employers of labor find that they can put absolutely no dependence upon their help on account of the universal fever for the game.

The ingenuity of the Japanese is

shown in many little ways. For instance, during the crusade against the Bubonic plague the officials saved the skin of every rat that was killed, and in this way enough fur was obtained to make fifty thousand sets of ear muffs for the soldiers in Manchuria.

In Darjiling, a hill station of northern India, the only person who is allowed to enjoy the luxury of a drive is the governor. No one else is permitted to own a conveyance, because the mountain roads are so narrow that traffic would likely cause accidents from vehicles being forced over the precipices.

No other language in the world has so many complications as that of the Korean. The simplest phrases have innumerable forms, according to the person to whom they are addressed. Each expression varies accordingly as it is addressed to a woman, a child, a man, a menial, a grandee, an official, etc. There are over two thousand endings to the verb "to be."

A necessary adjunct to any wedding party in Russia is the donation feature. A big wooden bowl, covered with a cloth, is placed on a table near the bride and groom, and all who come to pay their respects to the newly married couple are expected to deposit a gift. If the donor has been too busy to make a selection, its equivalent in cash is very acceptable. The Russians consider that the jingle of coin makes a pleasing accompaniment to the shower of congratulations.

Japan is the leading fishing nation today, although the value of her sea products is surpassed by that of two other countries. The United States, outside of Alaska, and Great Britain each produce about \$45,000,000 worth annually, and Japan produces about \$30,000,000 worth. Japan leads in the proportion of the total population engaged in the fishing industry, in the actual number of people living by the industry, in the relative importance of fish products in the country's domestic economy, and in the support given by the government to the industry.

A monument to commemorate the man who invented and manufactured the first sidehill plow will soon be erected in Peru, Maine, according to plans recently formulated. The plow was first designed and then cast at a little furnace on the top of a mountain in Peru, seventy-five years ago, by a man named Warren. The invention proved a success, and lately one of the inventor's sons, a wealthy resident of Philadelphia, visited his birthplace and made plans for raising a suitable memorial to his father.

The most difficult thing to keep in check both in Singapore and Penang is gambling among Straits-born women of all classes, from the highest downward. Frequent complaints are received from husbands whose wives have lost heavily, and it is known that there are five lotteries operating more or less daily in Singapore which are almost exclusively supported by "nonias." Education may possibly do something to stop this vice among the Straits-born women, but it must be confessed that its effect in that direction on their husbands and brothers is but small.

Hindu women, taught that their religious duty is to destroy their own lives on death of their husbands, if possible, or failing that, to live through the rest of their days, after they are widowed, in uttermost misery and degradation, believe it to be a sacred obligation, and patiently endure all that is demanded of them.

The British government long ago declared the burning of a living widow on her husband's funeral pyre to be murder on the part of all accessory to the act; yet still many of the poor women desire, as a pious act, to commit suicide in the torturing flames. A remarkable case has just been reported from Nepaul in a Hindu journal, showing that the native women still do not revolt against the time-honored sacrifice demanded of them.

An elderly woman announced her intention to immolate herself on her husband's funeral pyre, and was at once honored for it and visited by all her relatives and acquaintances. The pyre was made and fifteen thousand people assembled by it; but at the last moment the government officials intervened and prevented the burning of the live woman. She had already distributed all her large possessions, and left herself penniless. She then went back sadly to her home, lay down, and refused all food, dying of sheer starvation nine days after her previous sacrifice had been prevented.



A RUSSIAN HOUSEWIFE



A GROUP OF CHINESE PRIESTS

Thomas Jefferson

BESIDE the monuments of stone that to-day keep green the memory of the subject of our sketch, that famous instrument, the Declaration of Independence, of which he was the author, stands forth as an imperishable testimony. Of all the men prominent in the founding of our country, there is no life deserves more earnest study than that

of Thomas Jefferson. He was the third child and eldest son of Peter and Jane Jefferson. The date of his birth was April 19th, 1743. While yet a student, in 1765, Jefferson heard a famous speech against the stamp act, delivered by Patrick Henry, and it lighted a flame of patriotism in his young breast. He was a member of the Virginia Assembly and of the Continental Congress. He was an excellent writer, and for this reason, among others, he was appointed to draft the Declaration of Independence. From the fulness of his own mind, and without consulting one single book, Jefferson drafted the Declaration. Franklin and John Adams, to whom the draft had been submitted separately, each suggested two verbal corrections, which Jefferson accepted, and then submitted it to Congress.

From about the beginning of 1779, when he was Governor of Virginia, having succeeded Patrick Henry, until the close of 1780, the British and German troops captured at Saratoga were quartered in his vicinity, and he greatly endeared himself to them by his uniform kindness. It was a most trying time for Virginia, and Jefferson sagaciously perceiving that a military man was needed in the executive office, declined a re-election, and was succeeded by General Nelson of Yorktown. After holding various public and diplomatic positions, in 1796 he was chosen Vice-president of the United States and in the spring of 1801 he took his seat as chief magistrate of the nation. With untiring perseverance he succeeded in establishing that yet flourishing institution, the University of Virginia, and until the last his life was spent in pursuits of public utility. The latter years of his life were clouded with pecuniary embarrassments. He sold his library to the federal government in 1815, consisting of six thousand volumes. He survived that great sacrifice eleven years, and then his spirit took its flight, while his countrymen were celebrating the fiftieth anniversary of the independence of the United States. It was a beautiful trait in his character that he was free from envy. A strange and striking coincidence closed the life of this great man and John Adams. Both expired on the same day, and at almost the same hour. They were both on the committee that framed the Declaration of Independence, both voted for that instrument just fifty years before; both signed it; both had been foreign ministers, and both had been presidents of the Republic; they had helped to establish. Proud patriots they, and the nation still reveres their memory. In the words of Webster, their great eulogist, "Their names liveth evermore!"

Ralph Waldo Emerson

THE beginning of the last century saw a galaxy of statesmen that has made our history grand. The fame of Washington, Franklin, Jefferson, and Adams had spread over the United States, and reached as far as Europe. It seems not only a time for famous men, but a very good time for men to be born to become famous, as was demonstrated in the birth of Emerson, Bancroft, Hawthorne, Longfellow, Whittier, Holmes, Poe, and others. Even old England became affected, and brought forth the "Great Commoner," W. E. Gladstone. From this list of celebrities, seven were of the twenty-nine chosen for America's Hall of Fame. Emerson, the "Concord Philosopher," received eighty-seven of the votes cast by the one hundred judges.

Ralph Waldo Emerson was born May 25, 1803, in Boston, not far from the birthplace of Franklin. His ancestors had been settled in New England for

Men Worth While in History

five generations. They had been ministers of the gospel one after another. His father was a clergyman, who founded what is now the library of the Boston Athenaeum. Emerson cared little for the usual boyish sports—books were his delight. He never owned a sled, and rarely engaged in the pleasures of a game of ball; nor did he often join other boys in their play. He preferred reading his books to any amusement.

Before he was eight years old his father died, leaving the wife and children unprovided for. The mother kept boarders for a living. Emerson was thoughtful and careful to help her in every way that so small a boy could. Her great desire was to give her sons an education equal to their father's. With this end in view, she made every sacrifice to keep her sons in school. She lost no opportunity to instill in them the advantages of a collegiate education, and lived to see the fruition of this training in her eldest son as principal of a school in Boston, and again when Emerson graduated from Harvard.

When he was ten years of age, he entered the Latin School. The next year, one day there came a report that the British were going to send a fleet to Boston Harbor. This young patriot went with the rest of the boys to help build earthworks on one of the islands. About this time he began to write in rhyme and verse the victories of the young American navy.

In 1817 he entered Harvard College, obtaining the appointment of "President's Freshman," a student who received his lodging free in return for carrying official messages. He served also as a waiter at the college commons, and in this way saved three fourths of the cost of his board. He was polite in manner, genteel in dress, and gentlemanly in conduct. These characteristics, combined with a happy disposition and a face full of sunshine, made him well liked by students and professors. Later in his college course he acted as tutor to younger pupils. The carrying of messages, doing chores and outside work brought frequent interruptions in the daily routine of school life, and this, no doubt, had something to do with his not being a diligent student. However, he was a youth of remarkable ability, and, in spite of extra work and difficulties, he graduated at Harvard when only eighteen. His poetry had found favor with his fellow-students, and, being popular with his classmates, he was made class poet at graduation.

After graduating, he taught for several years in a girls' school at Boston, of which his elder brother was principal, at the same time studying theology. The money he now earned was used to pay his debts and help his mother, who had stood nobly by him. Then he entered the Divinity School at Harvard, and in October he was ordained to preach, delivering his first sermon a few days later. In his family he was the eighth in line of Puritan ministers.

His health began to give way under the strain of study and overwork, and he was compelled to spend a winter in Florida. On his return he lived chiefly in Cambridge, preaching here and there, and in the spring of 1829 he became the minister of the Old North Church in Boston. The following September he married Miss Ellen Tucker. She lived only a short time after their marriage. Not long after her death a change in his views as to religious rites and duties made him unwilling to administer the Lord's Supper. Therefore he resigned his place in the ministry, and left the church of his fathers.

In 1832, on Christmas day, he sailed for Europe. During his visit to England he met the essayist, Carlyle, and the poets, Wordsworth and Coleridge. Of all the celebrities that he met, he enjoyed meeting Carlyle the most, and with him formed a friendship that lasted through life. This seems extraordinary, for few men were less alike in their manners or in their views of life. Carlyle was nearly always out of humor, constantly scolding, even found fault when his neighbor's roost-

er crowded, while Emerson was gentle, sympathetic, tolerant, and forbearing.

Carlyle delivered a course of lectures on "Hero Worship." Nine years later Emerson delivered a course of lectures in Exeter Hall, London, on "Representative Men." Their close friendship and these lectures along similar lines linked their names together, and Emerson was termed "the American Carlyle."

In 1833 Emerson came back to America, and settled in Concord, where he resided the rest of his life. The voyage to Europe in that day was much longer in time and much more expensive than now, and few people visited Europe, compared to the thousands who now go. He often talked in public to his townsmen about his travels in Europe.

In 1835 he married Miss Lidian Jackson, with whom he lived happily for almost a half century. Nearly every winter he would deliver long courses of lectures in Boston. While these were not printed, much that he said was afterward published in his essays. Emerson said: "Each day must be responsible only for the thoughts expressed that day. In writing my thoughts, I seek no order or harmony of results. I am not careful to see how they comport with other thoughts and other words." In like manner these thoughts expressed have impressed others. There is no harmony or like results with the readers of to-day as to what he believed or taught, some contending one thing, while others say another. To say the least, he is not a clear philosopher or writer at all times.

He was associated for nearly four years with Margaret Fuller in editing the Dial, a literary magazine. In 1841 he published the first volume of his essays, and three years later he sent forth a second series. These essays have been favorably compared to those of the best writers who came before him. Following the second series of essays, he published in 1846 his first volume of poems. In this volume was the hymn sung at the completion of the monument commemorating the Concord fight. This hymn is a favorite with young speakers of to-day, and the following verse is familiar from frequent quoting by authors:

By the rude bridge that arched the flood
Their flag to April's breeze unfurled,
Here once the embattled farmers stood
And fired the shot heard 'round the world.

It is one of the best and one of the best-known poems of American patriotism. "Threnody," a poem full of emotion and pathos, was written after the death of his first-born.

He was devoted to his children, and made it a point to gain their love and confidence. He entered into their sports, to make them feel that he was their comrade, and in sympathy with them under all circumstances. His discipline, though firm and positive, was gentle and mild.

In 1847 he made a second voyage to Europe, where he was received by the most distinguished men and women, for he was as widely known and as highly appreciated in England as in America. After his return he resumed his lectures. For forty years he lectured in all the important towns in the Union. He wrote a book under the title of "English Traits." His observations had been keen, and it is considered the best book written on the British character.

In 1872 his house was destroyed by fire, the result of which was a great shock to his mind. To recover his health, he went for a short time to Europe; but his memory failed rapidly, and he never recovered the vigor of his intellect. In 1875 an old friend prepared for publication another collection of his essays.

Near the close of his life he forgot proper names, and even the names of common things. When he wanted to say "umbrella" once and was unable to recall the name, he said: "I can't tell its name, but I can tell its history. Strangers take it away." He looked calmly forward to death, and it came when he was nearly seventy-nine years of age, on April 27, 1882. His motto was: "Hitch your wagon to a star."

Nathaniel Hawthorne

PROBABLY the rarest genius that America ever produced in a literary way was Nathaniel Hawthorne. He was born in Salem, Mass. in 1804. When he was eight or nine years old his mother took up her residence on the banks of Lake Sebago, in Maine, where the family owned land. Here Hawthorne ran wild, reading at odd times in Shakespeare, Bunyan's Pilgrim's Progress, and other poetical books within reach. A private instructor fitted him for Bowdoin College upon his return to Salem, and he entered that institution in 1821. Henry W. Longfellow was a classmate of his, and Franklin Pierce, afterward president of the United States, was in the class of 1824, the year before the graduation of Hawthorne and his friends. When he left college, the future novelist set himself down for some years in a room at his mother's house in Salem to consider what pursuit in life he was best fitted for. He says that he doubted whether so much as twenty people in the town were aware of his existence for nine or ten years. "In this retreat," he says, "I read endlessly all sorts of good and good-for-nothing books and had begun to scribble sketches and books, most of which I burned." Of his many works, the following are among the best: "Twice Told Tales," "Mosses from an Old Manse," "The Scarlet Letter," "The House of Seven Gables," "The Blithedale Romance" and "The Marble Faun." The first two are collections of sketches and tales, such as "A Rill from the Town Pump," "The Celestial Railroad," "Little Annie's Ramble," etc. "The Scarlet Letter," of course, stands forth as his great masterpiece. History says of it: "In keen and subtle analysis, in patient, almost insensible development of plot, as well as in beauty of description, and purity and elegance of diction, it stands alone in American fiction, unapproached except by other works of the same great master." Hawthorne's marked characteristics were his power of analyzing and developing the weird and mysterious, and of breathing a living soul into everything that he touched with the magic wand of his genius.

CONCORD TOWN

No American town is more noted for its literary associations than is the beautiful old town of Concord, twenty miles from Boston. It is an old town hallowed by historical as well as literary associations. Here was fired the shot, "heard 'round the world," as Emerson wrote, and here lived Emerson himself. Here is the old "Orchard House" in which Bronson Alcott lived and in which his famous daughter Louisa wrote so many of her inimitable books for the young. Here lived Thoreau, and within a mile or two of the town is the Walden Pond of which he has written so charmingly, and on the shores of which he built the little cabin in which he lived for a time.

Perhaps the most interesting house now standing in Concord is the Old Manse—that old manse described so delightfully by Hawthorne in his "Mosses from an Old Manse." It is of this same old manse that Emerson writes in his "Nature" when he says: "My house stands in low land, with limited outlook, and on the skirt of the village. But I go with my friend to the shore of our little river; and with one stroke of the paddle, I leave the village politics and personalities behind, and pass into a delicate realm of sunset and moonlight."

Hawthorne lived in the old manse in the first years of his married life and one of the tiny panes of glass in the room that was his study has his name on it scratched there by his own hand. The old manse is to-day just as it was in the days when Hawthorne lived his quiet, dreamy life there, holding himself aloof from the world and not welcoming even those whom he knew to be his warmest friends and his sincerest admirers. He cared for no companionship but that of his wife, and to the day of his death found it difficult to mingle freely and easily with the people of the world. There is not in all our American literature a more charming piece of descriptive writing than that given in "Mosses from an Old Manse."

Not far distant from the manse is Sleepy Hollow Cemetery, where one may see the graves of Thoreau, Hawthorne, Emerson, Miss Alcott and her parents. One will journey far before finding a more beautiful or a more interesting spot than this same old Concord town.

The Easter Tree and Pretty Legend to Which German Children Cling

THE Easter tree is greatly in favor in some of the provinces of northern Germany. Of course it does not displace the Christmas tree, but repeats it, and with decorations entirely different and specially appropriate to the Easter idea.

There is a curious and very sweet little legend cherished by German children concerning the Easter rabbit. Once upon a time, they tell us, a nice, kind rabbit, who was walking along a quiet woodland road, came across a fine, large nest filled with eggs. The poor mother hen had been seized by a wicked fox and could not go back to her darling nest, so this kind rabbit slept all night upon it, and when he woke in the morning (it was Easter morning) the nest was full of little, downy, yellow chickens. The chickens thought the rabbit was their own mamma, so they cried out for something to eat, and the rabbit ran about and fetched food for them, and kept them warm and fed them until they were all old enough to take care of themselves.

Ever since then the rabbit has been the special genius of Easter time, and this holiday is not complete for German little folk without an "Oster Hase's nest." It holds many a favor and present, serving the same purpose that Christmas stockings and wooden shoes do at Christmas time. It belongs to the Easter tree by right, and after that has been decorated they place the Easter nest, with the Easter rabbit sitting in state thereon, at the foot of the tree.

Can You?

"SIR," said a lad, coming down to one of the wharfs in Boston, and addressing a well-known merchant, "have you any berth on your ship? I want to earn something."

"What can you do?"

"I can try my best to do whatever I am put to," answered the boy.

"What have you done?"

"I have sawed and split all mother's wood for nigh on to two years."

"What have you not done?" asked the gentleman.

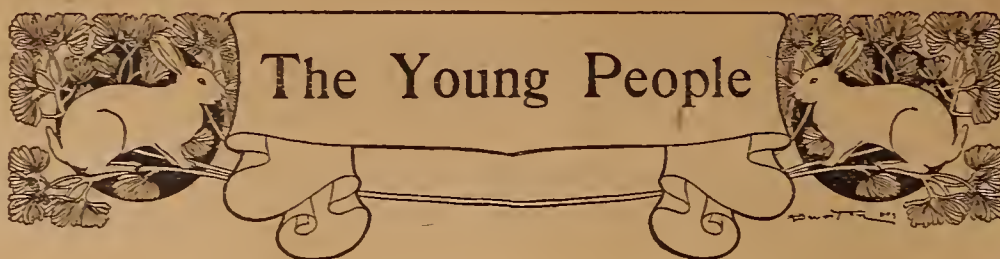
"Well, sir," answered the boy, after a moment's pause, "I have not whispered in school once for a whole year."

"That's enough," said the gentleman.

"You may ship aboard this vessel, and I hope to see you master of it some day. A boy who can master a woodpile and bridle his tongue must be made of good stuff."—Boys and Girls.

The Annual Easter Festival on the White House Lawn

TEN THOUSAND children and upwards, varied in age and size and color, possibly one hundred thousand highly colored eggs, and more than thirty thousand grown folks watching the strange amalgamation of color, form the essence of the great Easter egg-rolling carnival in the back yard of the President of the United States. The custom has been handed down from one generation of children to another. Where and when it originated no person in this age has been able to determine, but all Washington combines to guard it as a privilege inviolate. This great "play time" is not devoted exclusively to the pastimes wherein the colored eggs are an all-important adjunct, for many of the little visitors who have come unprovided



The Young People

with baskets of the fragile playthings spend the entire day skipping the rope, playing with dolls, sailing miniature boats in the great fountain basins, or indulging in some other diversion dear to the childish heart.

The features of this gala day at the home of the President, however, which are likely, after all, to most deeply impress the casual spectator are found in the beautiful democracy of the fête and the almost unending good-nature which prevails among these acres of children. The junior members of the families of cabinet ministers and senators, freed for once from the sovereignty of nurses, enthusiastically roll eggs to the grimmest and

in tattered clothes, but as the champion "egg picker" he is for the time being the idol of a band of loyal satellites.

The Friendly Quail

ONE cold morning Farmer Glover stood in the rear of the barn, fork in hand, looking out over the fields. Snow storm had followed snow storm, until the stone walls were so covered that the farm seemed like a great field, with here and there a small grove to break the monotony. The cattle had been fed, and each animal was munching contentedly at its pile of hay in the sunshine, scattering chaff over the snowy barn yard.

and chattered away while they worked, after the fashion of tree sparrows in the weeds down by the brook. Indeed, they showed none of their wild instincts.

Farmer Glover was careful not to frighten his woodland guests, and the next morning he put out wheat for them, and threw handfuls of chaff in the hay which the cattle had left. The flock returned again and again, until feeding the quails has become as much a part of the day's routine as looking after the hens and turkeys.

One cold morning after they had eaten, the kind-hearted farmer found the whole flock huddled together under the hay, apparently enjoying the warmth. Strange to say, they never come for their food when it snows or rains. When they have breakfasted, unless frightened, they usually walk away to their favorite haunts in the grove across the fields. They never alight on the trees, but occasionally perch on the rail fence. Once or twice, when no one was in sight, they came near the house.

For six weeks the quails have enjoyed Farmer Glover's bounty. And now, with the opening of spring, their kind-hearted protector will meet them only in the fields and woods; but whenever Bob White's musical call comes over the summer meadows, it will bring pleasant memories of those winter breakfasts in the snowy barn yard.—St. Nicholas.

The Five Wishes

"I WISH I lived in a beautiful palace, with nothing to do but what I pleased," said little Susie Blake.

"Oh, I wish I was very, very pretty, so that the people would look at me and say, 'She's the prettiest girl I ever saw!'" exclaimed Ella Dudley.

"And I do wish more than anything else, that I had lots and lots of money," said Dora Kyle.

"I would like to be very bright, and write beautiful story books," said Maggie Wilkins.

"I wish to be good—so good that all my friends will love me," timidly said little Kate Otis.—Round Table.

A Clever Boy

A boy twelve years old once conquered a smart and shrewd lawyer fighting for a bad cause.

Walter was the important witness, and one of the lawyers, after cross questioning him severely, said:

"Your father has been talking to you and telling you how to testify, hasn't he?"

"Yes," said the boy.

"Now," said the lawyer, "just tell us how your father told you to testify."

"Well," said the boy, modestly, "father told me that the lawyers would try and tangle me, but if I would just be careful and tell the truth I could tell the same thing every time."

The lawyer didn't try to tangle up that boy any more.—The Wesleyan.

Ponies for the Boys and Girls

We hope you are an active contestant for "Surprise" and "Beauty," "Fuzzy" and

"Wuzzy," the four magnificent blue-ribbon prize ponies that will be given away absolutely free in the great Four-Pony Contest that FARM AND FIRESIDE is conducting. Never before have such beautiful ponies been offered as prizes, and never have so many ponies been offered in a prize contest.

The Puzzler

Transpositions

Three men thought of engaging in business together, but the diversity of their occupations * * * * * all their plans. One is a * * * * * at the shoe factory, one a * * * * * at the abattoir, while the third is a * * * * *

Square Word—No. 1

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Square Word—No. 2

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- 1—Decease.
- 2—Additional.
- 3—A volume of plates illustrating any subject.
- 4—A peculiarity.
- 5—Speed.

- 1—Transparent.
- 2—To quit.
- 3—Edges of a roof.
- 4—To turn away.
- 5—To be quiet.

Answer to puzzle in the March 10th issue: Cypress, Ebony, Flag, Cotton, Poplar, Cedar.

raggedest little youngster in all Washington. Rich and poor, black and white, mingle together for this one day on terms of perfect equality; and, strange as it may seem, seldom does there creep to the surface any manifestation of envy on the part of the poorer children for the possessions of their more fortunate playmates. It is only the happy possessor of a goose egg or turkey egg who stands superior to his fellows in this vast assemblage. Mayhap he is a piccaninny

Suddenly from the light woods near the barn came a startled "Bob White"! Immediately there was an answering call from the woods across the fields, and then another and another, and soon a flock of about twenty quail alighted cautiously on the ground, two or three rods from where Mr. Glover stood, and began picking up the seeds from the hay which the cattle had strewn over the snow. They scratched about like a flock of hens, and apparently quite as much at home,



AN EXCITING MOMENT IN THE GAME OF "PICKING"



A TYPICAL GROUP OF CHILDREN ENGAGED IN AN EGG-ROLLING CONTEST



EASTER EGG ROLLERS OF TWO GENERATIONS

Miss Gould's Practical Fashions



No. 885—Misses' Plaited Shirt-Waist with Pockets
Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, four yards of twenty-two-inch material, or three yards of thirty-six-inch material

THERE is a new keynote in the spring fashions this year which every woman who makes her own clothes will be glad to know about. It is adaptability. This new adaptable feature is perhaps best illustrated in the jumper or guimpe dresses which are to be so very fashionable throughout the spring and summer. The jumper waists will be seen in panama, voile and silk, and also in the cotton fabrics, such as plaid and check gingham and silky mercerized madras. It is this style of dress that will be worn in place of the shirt-waist suit. There is no doubt that it has many good points in its favor.

Take, for example, the jumper frock for a young girl illustrated on this page, and let us look into its possibilities for usefulness. The pattern consists of three garments—the skirt, the waist and the bib jumper. In making up the gown it would be wise to have at least two waists to wear with it, and two or more jumper bibs. One of the waists might match the skirt, and the other might be of sheer India linen or all-over lace. When the waist that matches the skirt is worn, then the bib jumper may be of some other material. For instance, if the waist and the skirt are made of dark blue cotton voile, the bib jumper would look attractive in all-over lace; and then again, if an entirely different sort of a dress was wanted, the skirt and the bib jumper could be made of plaid mercerized madras, and the waist be of all-over embroidery or linen. The jumper in this frock is slipped on over the head, and is made with tabs at the back and front which button onto the belt.

The skirt is a very-simple-to-make five-gored model fitted with darts at the waist and having an inverted plait at the back.



No. 887—Misses' Waist with Bib Jumper

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, three and one half yards of twenty-two-inch material, or two and one half yards of thirty-six-inch material, with three fourths of a yard of contrasting material for the bib jumper

No. 888—Misses' Five-Gored Skirt

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, seven yards of twenty-two-inch material, or five yards of thirty-six-inch material



No. 889—Box-Plaited Shirt-Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one fourth yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material

How to Order Patterns

TO SIMPLIFY the art of dressmaking, and to be of practical help to our big FARM AND FIRESIDE family, we will furnish a pattern for every design illustrated on this page. The working directions of each pattern are so carefully explained on the pattern envelope that every woman who tries them will find that it is a simple matter to make her own and her children's clothes. The price of each pattern is ten cents. The money should be sent to the Pattern Department, FARM AND FIRESIDE, 11 East 24th St., New York City. In ordering, be sure to mention the number of the pattern and the size required.



No. 886—Tucked Tailored Shirt-Waist

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-two-inch material, or three yards of thirty-six-inch material



No. 890—Misses' Pony Coat

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, two and three fourths yards of thirty-six-inch material, or two yards of forty-four-inch material

The bottom of the skirt is finished with a hem and two bias folds.

Of course, the waist has much to do with the adaptability of this gown. If a plain waist of linen is worn, it at once gives the dress a smart every-day-wear look; while if a dressier effect is desired, an elaborate lingerie waist will do much toward producing it. Other changes may be introduced by varying the fabric used for the bib jumper; and then again, the jumper may be left off and only the waist and skirt worn if one wants another change.

It is for the benefit of the women who are wise enough to do their summer sewing at this season of the year that these advanced spring fashions are shown. The shirt-waists illustrated on this page, though simple in design, are pretty to look at and display the newest features. Smaller sleeves and longer shoulder effects are seen in many of the newest cotton shirt-waists. Tucks and plaits are to be more the fashion than ever, and never before has the dividing line been so marked between the lingerie waist and the tailored waist. With the tailored waist the plain shirt sleeve will be worn with a wristband or starched cuff. The deep cuff to the elbow is no longer fashionable. With the lingerie waist the sleeve will be very elaborate, and almost invariably elbow length. One of the very newest ideas seen in the lingerie waists is the heavy lace motifs used on the sheer fabrics. Detachable lace flowers and fruits in relief are the height of fashion as a trimming.

The long-shoulder effect is shown in different styles. Sometimes it is the drooping shoulder, emphasized in many ways, frequently in a yoke which extends well over the top of the sleeve; and then again, a broad-shoulder effect is shown by one plait being extended over the shoulder something in the style of the old Gibson waist.



No. 891—Plaited Shirt-Waist with Tab Yoke

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one fourth yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material

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Spring Diseases

EVERY season has its joys and drawbacks, so spring is no exception. Often times the diseases of this season are preventable, but it is hard to make some people believe it. There are many little graves in the churchyards—and large ones, too—over which should be written in large capitals "Due to Carelessness;" but we are not prone to speak the truth about our dead friends always.

Take lung fever and pneumonia, for instance. The ambitious mother of the family decided to get her spring cleaning over early before hot weather and flies make it a burden, and the result is the children take severe colds. They are doctored as usual, but the first fine day are allowed to run out and play. The mother being busy with her cleaning fails to notice the chill wind that suddenly arises, or that the little ones have wet feet, and presently some one is down with lung fever. Even if the long and expensive illness does not prove fatal, the child is weakened and must be watched for years to come. A little girl who took lung fever during a housecleaning siege years ago has been drag-



COMBINATION BAG AND APRON

ging out a delicate, miserable existence ever since, and the doctor says will eventually run into consumption.

Grown people are more liable to pneumonia than children, but little folks can have it. Perhaps the house has been overheated all winter—most country houses are—and suddenly the stove comes down and a rush of clean, fresh air takes possession of the house. It may be the paperhanger helps along by putting on fresh, damp paper which it would never do to smoke up, and the first thing any one knows there is sickness in the family. Pneumonia is a dangerous, rapid disease and should never be courted with damp walls and chilly rooms. Leave the stoves up until you are sure the weather is settled, and by all means have one in order for cool days all summer.

Rashes and blood disorders are very apt to make their appearance in the spring more than at other times. The thrifty housewife wants to dispose of her supply of buckwheat and other winter articles of food, so she continues to serve them after the weather moderates; but it is poor economy. The children break out in sores, and some member of the family comes down with a huge boil or abscess, just when spring work is pushing the hardest. Too much pork, hickory nuts or walnuts, mince pies, heavy puddings, rich cakes, buckwheat cakes and sweets load the blood with trouble that must work out somewhere, so it usually opens like a small volcano in the most tender spot and pours out the corruption.

Hide the hickory nuts and throw the buckwheat flour away rather than make yourself trouble by allowing your family to indulge freely. Some mothers seem to think that ugly scabs on the children's faces are a necessary evil every spring without inquiring into the cause. By using greens, spinach, apples, canned fruits, onions and everything in the way of green food the systems are cleaned and toned up for the hot weather as if by magic. It is really like housecleaning inside to eat plenty of onions, lettuce, spinach and wild greens. Canned tomatoes and dried fruits should not be despised, and all the heavy desserts and delicious things of zero days must be laid aside until next year.

Rheumatism is also the bane of spring time, when it is cool one day and warm the next. We used to think that this disease belonged exclusively to elderly people, but even mere children have it. One boy who slipped away to go in swimming a warm day in March went on crutches and suffered every day until his death years later with rheumatism. I know there are people who hoot at these things and tell of the risky things they have done, but they may do them once too often. A lady who was troubled so much with swollen feet sat

down in desperation one day and plunged them into cold water. It was not ice cold, of course, and on some occasions might not have hurt her, but it was a hot spring day and she was exhausted with cleaning, and she never walked again. Now, cool water is comforting and refreshing to tired feet even on a winter day if applied gradually and when the person is in perfect health, but it is nothing less than suicide to plunge the swollen members into cool water when one is tired out and fatigued.

Catarrh, that disgusting disease of the throat and head, flourishes in spring, and every cold makes it worse. The best way to prevent catarrh is to keep the system in good condition and avoid colds. Sleep with plenty of fresh air in your bedroom and have your house well ventilated. In fact, thorough ventilation and absence of overheating will prevent most diseases. If fresh air had to be bought it would probably be more used, but being perfectly free it is not counted as worth much by many housekeepers. Let in the sunlight and fresh air and feed out the tendency to disease by a sensible diet. In this way you will get ready for the busy summer season and avoid paying the doctor for his expensive visits. It is better to stay well than to get well, and it can be done.

HILDA RICHMOND.

Combination Bag and Apron

TO WORKERS of needlework the apron with a pocket for the materials has become almost an indispensable article. The combination of work bag and apron—both so useful—will no doubt appeal to many at once. One yard of dimity or silk and three and one half yards of one-inch satin ribbon are the materials required for one. Make a casing one inch wide at both ends, and a tuck the same depth, one third the length, across the apron. Draw one yard of ribbon through this tuck, and then one yard through the casing on the end that is longest from the tuck. Fold this end to meet the tuck, overcast the selvages, join the ribbons in a bow, and sew, so they may be used to draw the bag when the apron is not worn. The rest of the ribbon is for the waist. When wishing to lay your work away protected from soil, drop the upper part into the pocket with the work, draw up the ribbons, and behold a neat bag is the result.

M. E. SMITH.

Crochet Work Bag

THREE balls of san silk in yellow, one yard of yellow taffeta and two yards of one-inch-wide yellow taffeta ribbon are the materials required for this bag.

Crochet in double crochet a mat ten inches in diameter. Make a lattice insertion eight rows deep as follows:

Crochet a chain of seven stitches, catch in the third stitch of the mat with a single stitch; continue the chain of seven in every third stitch around the mat, and join. Repeat eight times, then crochet a plain row, catching up each loop in the center, and join. Next row double crochet in each stitch; repeat until the bag is the desired depth. Crochet the casing: Two double crochets, and a space, two double crochets and a space; join. Make a scallop of ten deep stitches in alternate spaces. Cover a five-inch circle of cardboard with silk on both sides, for a bottom. To this gather and overcast a piece of silk as long as the crochet bag measures at the casing and as deep as it measures from the lower edge of the casing to two and one half inches from the center of the mat. Slip the crochet bag over the silk bag. Catch the two together around the cardboard bottom. Turn over a small seam at the top of the silk bag, and overcast it to the crochet bag along the lower edge of casing. Insert the ribbon draw strings, and finish with a bow at each side.

M. E. SMITH.

Easter Suggestions for the Cook

NESTS OF BOILED MACARONI—Place long pieces of white pipe macaroni in boiling salted water in which spinach has been cooked, to give a green tint. Cook until tender, drain, then immerse in ice-cold water. Drain the macaroni again, and dip all the lengths in the whites of two slightly beaten eggs. Then take one of these lengths, and commence to make a basket by coiling it around and around, gradually widening. When one piece has been used, join on another, and proceed in this way until the basket or nest is of the desired size and shape. Then coat the whole with the whites of eggs, and bake until it becomes firm.

POTATO EGGS—Take two cupfuls of mashed potatoes, and while hot season with butter, pepper and salt. Whip in the stiffly beaten whites of two eggs, and then with buttered hands, form the mixture into egg-shaped balls; brush them over with melted butter, place carefully in a greased pan, and bake in the oven until a golden brown.

SPONGE NESTS—Make a sponge cake, and bake in two square tins. As soon as cold cut it into three-inch squares. Split these squares, and divide the top part of each into four strips; spread with frosting, and stick to the bottom portions so as to form square boxes or nests. Sprinkle with cocoanut, candied lemon and orange peels. Just before serving fill with vanilla cream which has

been frozen hard. These will be found not only appetizing, but also attractive.

COCOANUT CREAMS—Place two cupfuls of powdered sugar in a porcelain kettle with enough water to make a stiff dough—a

little less than one half cupful—and stir with a spoon until well blended. Have ready one cupful of shredded cocoanut moistened with warm water. First place the sugar mixture over the fire, and when entirely melted and as soon as it becomes just warm stir in the prepared cocoanut; flavor with vanilla, and stir well. To give a green tint add a few drops of spinach juice before taking from the fire. Line two square tins with paraffin paper, and cover with the warm candy, pressing with a knife as smooth as possible. Have only half of the candy colored. When cool, cut the candy into squares, and arrange the two colors on the same dish.

Uses of Burlap

BURLAP which is now found on the market in so many pretty hues is a boon to the busy mother on account of its wearing qualities, its cheapness and the



CROCHET WORK BAG

ease with which really artistic effects may be obtained with it. There is no excuse for the barren-looking sitting rooms and piazzas we so often find in country homes, when the expenditure of a couple of dollars and a few hours' work can make them cozy and inviting. For hard everyday usage I have found nothing so satisfactory as burlap, and the fact that it may be made up entirely on the machine recommends it to the overworked housewife. Very pretty chair and couch cushions may be made by combining different shades or colors in various ways—different colors may be used for each side, or straps and bands may be stitched on with good effect. The edges should be finished with a scantily plaited ruffle, a cord, or simply by a hem.

Most charming curtains for the bookcase, doorway or window are made either plain or with bands of a contrasting color, while it has proved a most substantial covering for couches, foot rests and boxes of various sorts.

Do not let the sitting room go "curtainless and cushionless;" neither fill it with things too nice for everyday use, if you value the comfort of yourself and your family.

ALICE M. ASHTON.

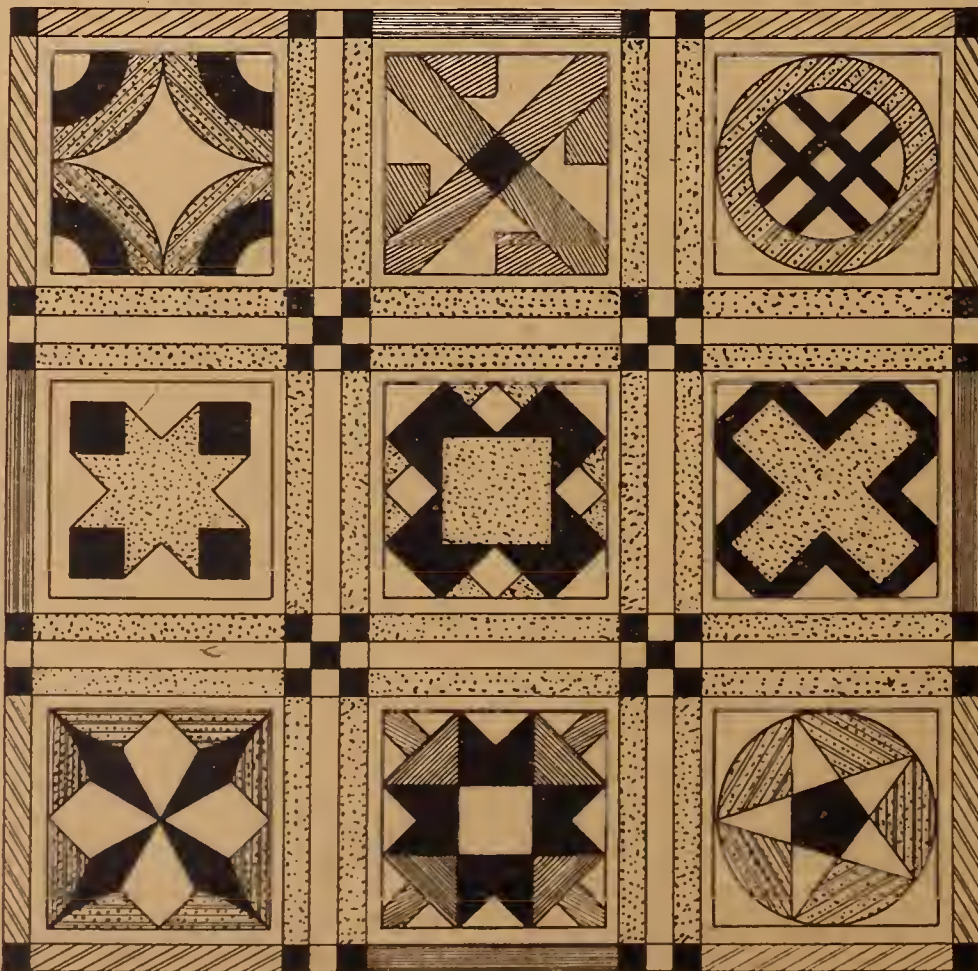
Selecting Wall Paper

THE question of paper is one that arises in connection with some room in the house almost every spring, and is really of considerable importance, since, once in place, it lasts ordinarily for a number of years. If the selection has been wisely made it will be a joy during all that time, while if something unsuitable has been used it will give offense for a like period. It is always best to select the pattern from the roll rather than a small sample, since in wall paper, as in carpet, the effect is often quite different when seen in the piece from that given by a small sample.

Quite as much care is required in the selection of suitable paper for a room as in the choice of a dress for an individual, if, like the dress, the wall covering is to be becoming and appropriate. The size of the room must be considered, the height of the ceiling, the amount of light that enters, the color of the carpet, woodwork and furniture, and the character of the pictures, ornaments, etc., for which it is to form the background.

A small room can be transformed into a veritable "box" by choosing a paper having a large design in striking colors; whereas the same room would appear larger than it really is if a dainty little pattern in soft, unobtrusive tints is chosen instead.

When the ceiling is low a light-colored paper or one having lengthwise stripes or an elongated design will make



Drawn by Arthur J. Ransom

SOME FANCY DESIGNS FOR QUILT BLOCKS

it seem higher; and it is also a good plan to run the side-wall paper clear up to the ceiling, omitting a border, or placing it on the ceiling instead of the wall, in which case the picture molding would be placed at the angle of the ceiling and wall. Either a plain light paper or one having a small figure in a delicate tint is best for small or low ceilings, as either tends to give distance, thus increasing height and area. Conversely, if the ceiling is too high, proportionately, for the size of the room, it will seem less high if the walls are papered with a large design, broader than long, and a double-width border used at the top.

The number of windows and their location with regard to sunlight are important factors in the choice of a paper. In a room having but one window a light paper will reflect the light that enters, and make the room seem appreciably lighter and cheery, while a dark paper would absorb the little light and render the apartment gloomy. A north room having plenty of light will seem warmer in red or yellow, and colder in blue or light green, while the light green or blue will seem to reduce the temperature of a south room several degrees.

Too many colors in one pattern are always to be avoided, and the most artistic effects are produced by papers combining various tints of the same color, as of red, yellow or green, or green and white. That the gilt papers are no longer favorites is fortunate, for they never wore well; the cheaper ones always looked cheap, and even the most expensive would tarnish. For a restful effect in a living room, or as a harmonious background where many small ornaments and pictures are hung, nothing excels the various light tints of green with white—it is Nature's background, and rarely less pleasing in man's domain.

Harmonious effects are never a matter of cost; one can produce a nightmare of incongruity with paper costing a dollar a roll, or obtain artistic effects in excellent taste with that which costs but a tenth as much. Nor can a paper be chosen because it looks well in a friend's home. Possibly her carpet, her furniture, the finish of the woodwork, the position of the room in the house, its size or shape, all differ from our own, and all these features must be considered, and if intelligently studied, a selection greatly amiss is hardly possible.

Where there are several small children a wainscoting in the dining and sitting rooms is always nice and practical, and a great help in prolonging the life of the wall paper.

Matting in a plain color having a figure harmonizing with the tone of the wall paper makes a durable wainscot that, being washable, is always fresh looking. Less expensive, for the same purpose, are burlap in harmonizing shades and the heavy paper in imitation of wood grain. A narrow wooden molding finishes the top of whatever is used, and the cost is partly offset by the lesser amount of wall paper required.

For the kitchen nothing in paper is so economical and sanitary as the new washable papers, which remove most of the objections formerly held against paper for the kitchen. It has an oil-cloth finish on cloth foundation, is durable and inexpensive, and as attractive in design as the ordinary paper.

EDITH E. SHAW.

A Good Raisin Cake

A SUBSCRIBER writes: "I have tried the following recipe for boiled raisin cake and can recommend it to FARM AND FIRESIDE housewives: Cover one and one half cupfuls of raisins with boiling water, and let them simmer twenty minutes. Cream three quarters of a cupful of sugar with a quarter of a cupful of butter, add one and one half cupfuls of flour, half a cupful of the raisin water and one egg beaten light but not separated. One teaspoonful of soda should be sifted with the flour. Season with one teaspoonful each of nutmeg and cinnamon, add the raisins, well dredged with flour, and bake thirty minutes. The raisins should be seeded before boiling them. This is an excellent cake, cheap, easily made and with a flavor slightly different from any other of its kind."

Housecleaning Time

IN THE spring, when a good deal of painting and plastering is being done, it is well to know that mortar can be removed by rubbing the spots with strong vinegar; if the mortar has been on for some time, hot vinegar should be used. Mix a little turpentine with sand, and rub the paint spots on the windows with it, and they can be easily removed. When one is remodeling their rooms they often want to remove the old paint on the woodwork. Some burn it off with a gasoline torch, some use strong lye water. The former is tedious

and the latter is dangerous to the hands, so a better way is to take three pounds of quicklime and one pound of pearlash and add enough water to make it the consistency of paint. Apply this with a brush to the old paint to be removed, and let it remain on for at least twelve hours—twenty would be better—then it can be easily scraped off.

It is never advisable to use much soap on painted woodwork; the best way to clean it is by using whiting. Dip a piece of flannel in warm water, then into the whiting after wringing some of the water out of the cloth; apply this to the painted woodwork, then wash off with clean water, and wipe dry. To clean natural woodwork use crude petroleum oil. Take a large piece of cheese cloth, moisten this with the oil, and rub the woodwork, then polish with another cloth. Furniture can be cleaned in the same way. It is better for this purpose than coal oil, for it does not leave a white scum, as the coal oil often does.

Oil marks and where people have leaned their heads can be removed from wall paper by using pipe clay mixed with water. It should be about the consistency of good cream. Apply to the soiled spots and allow to remain at least twenty-four hours. Use a brush to remove.

To clean matting, take it out upon a grassy plot and sweep well, then scatter



NEEDLEBOOK ROLL

dry Indian meal over it. Dip a long-handled mop into a pail of hot water, wring the mop so the water will not drip, then apply to the matting, going over it a breadth at a time. It is well to rub it crosswise. Change the water often. After it is dry sweep off the meal. A great many prefer to wash their matting with salt water, but some matting will turn yellow under this treatment. If salt water is used it should be in the proportion of a pint of salt to half a pail of water. Dry quickly with a soft cloth.

I find the best thing for washing windows, if one wishes them bright and shining, is to use warm water in which there has been put one teaspoonful of ammonia and a few drops of kerosene oil; polish with tissue paper or chamois. If the windows are very dirty it is well to rinse them off before polishing. Mirrors can be cleaned in the same way.

To remove fly specks from bronze lamps, chandeliers, picture frames, and statuettes, cover the spots with grated raw potato, and let remain until dry, then brush off carefully. If your table has white spots on it on account of hot dishes being set on it, you will find that they can be removed by rubbing first with kerosene oil, then with a cloth dampened with spirits of camphor.

M. M. W.

Needlebook Roll

THIS attractive little article is made by covering a pasteboard roll five and one half inches in circumference and three and one half inches long with old rose satin ribbon as wide as the roll is long, leaving a length of five or six inches to pad and line for needles. The lining and small bags are of olive-green taffeta ribbon the same width.

Line the inside of the roll. Gather and overcast to each end a piece of ribbon ten inches long and three inches deep. After the casing is made draw up with narrow green ribbon to match. Sew a piece of No. 2 satin ribbon the same shade to the point of the needle pad, to tie the roll when it is wound. M. E. SMITH.

A Left-Over

A LITTLE item I learned along the line of good housekeeping may be of interest to others: When you boil a large fowl, and have more broth than you wish to use at the time, seal it up air tight, like you would fruit, and then some day when you want to make a potpie or gravy or cook potatoes, use it. SUSAN NUTT.



Doing a Week's Washing In 6 Minutes—Read the Proof

THIS woman is using a 1900 Gravity Washer. All she has to do is keep the washer going. A little push starts it one way—a little pull brings it back—the washer does the rest. The clothes stay still—the water rushes through and around them—and the dirt is taken out. In six minutes your tubful of clothes is clean. This machine will wash anything—from lace curtains to carpets, and get them absolutely, spotlessly, specklessly clean. There isn't anything about a 1900 Gravity Washer to wear out your clothes. You can wash the finest linen, lawn and lace without breaking a thread. "Tub rips" and "wash tears" are unknown. Your clothes last twice as long. You save time—labor—and money. You wash quicker—easier—more economically. Prove all this at my expense and risk. I let you use a 1900 Gravity Washer a full month FREE. Send for my New Washer Book. Read particulars of my offer. Say you are willing to test a 1900 Gravity Washer. I will send one to any responsible party, freight prepaid. I can ship promptly at any time—so you get your washer at once. Take it home and use it a month. Do all your washings with it. And, if you don't find the machine all I claim—if it doesn't save you time and work—if it doesn't wash your clothes cleaner and better—don't keep it. I agree to accept your decision without any back talk—and I will. If you want to keep the washer—as you surely will when you see how much time, and work, and

money it will save you—you can take plenty of time to pay for it.

Pay so much a week—or so much a month—as suits you best.

Pay for the washer as it saves for you.

I make you this offer because I want you to find out for yourself what a 1900 Gravity Washer will do.

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Write for my book today. It is FREE.

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You are welcome to the book whether you want to buy a washer now or not.

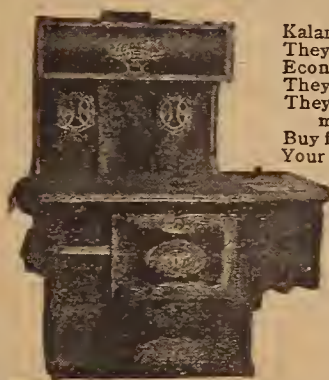
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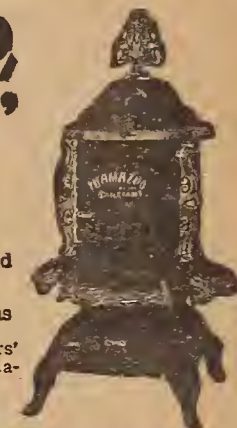
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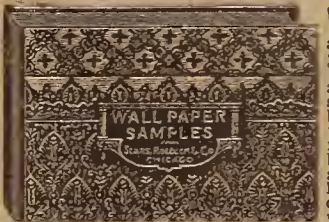
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Of Curious Interest

Illustrated Contributions to this Department Are Invited, and Those Accepted Will be Paid For

Queer Masquerade Costume

THE unique costume illustrated on this page was made from a FARM AND FIRESIDE princess-dress pattern. Canceled postage stamps were used in its adornment. The foundation of the dress was cambric muslin, which, when completely covered, required 22,000 stamps. The



MASQUERADE DRESS COVERED WITH CANCELED POSTAGE STAMPS

princess pattern without the trimmings, required 19,200 two-cent stamps. There were two rows of one-cent stamps around the skirt eighteen inches above the hem, requiring 500 stamps, the skirt being five yards at the bottom. The front was trimmed in Gabriel style, requiring 500 stamps; the V-shaped neck was decorated in special-delivery stamps, 150 in all. The large cuffs and collar required 435 stamps of different values. The chemisette was composed of foreign stamps, 405 in all. The George Washington hat required 600 stamps to cover it. Recently this costume took several first prizes at Ohio roller-skating masquerades.

Costliest Dress in the World

ONE of the princesses of the Burmese court, a young woman not yet twenty, is said to be the possessor of the costliest dress in the world. It is a court costume and worn only on rare occasions. It is studded with jewels reputed to be worth in the aggregate not less than one million four hundred thousand dollars.

It may seem a trifle incongruous that in a land where the masses are at the starvation point all the time, and often on the fatal side of that point, the wearers of the richest raiment should be found, but such seems to be the case.

Chinese Doctor Bills

AMERICAN doctors are paid for service given when people are sick. The Chinese doctors are paid when their patients are well. As soon as the Chinese emperor is sick his physicians sigh, for they know that their salaries are cut off until he is well again. The zeal with which the royal doctors get to work to get His Majesty back where their salaries will begin again is said to be wonderful.

Americans' Popularity in Japan

ACCORDING to the Kobe "Herald," George Washington and Abraham Lincoln rank even Admiral Togo as popular heroes in Japan. The "Herald" says that Doctor Camakawa, formerly president to Tokio University, offered to present a picture of a famous man or woman to the Iriye Primary School, Iliogo, and asked that a vote of the children be taken to choose the subject of the portrait. The 343 boys and girls of the school were asked to write down the name of their favorite great man or

woman. Washington and Lincoln came out at the head of the list, with sixty-nine and fifty-three votes, respectively, while Togo came third with only twenty-eight, and Ninomiya Sontoku, a famous ancient Japanese philanthropist, came next. The fifth man chosen was another American, Benjamin Franklin, who received twenty-one votes; then followed after him, with one exception, Florence Nightingale, four other Japanese, then Admiral Nelson, then six Japanese, then Bismarck with five votes, then two more Japanese, and Napoleon with four votes. Among the scattering were President Roosevelt, Galilei, Columbus, Socrates and, strange to relate, Peter the Great and Admiral Makharoff, of Russia.

Mile of Pennies

MEMBERS of the Presbyterian Church at Sayre, Pennsylvania, have adopted a novel method by which to raise money for the erection of a new church at that place. The idea is an exemplification of the old adage, "Take care of the pennies, and the dollars will take care of themselves."

The object is to gather "a mile of pennies," and to do this each member has been provided with a narrow strip of paper a foot in length. The obverse side of the strip is divided into spaces just large enough to hold a penny each, and is covered with glue. The reverse side contains a description of the plan. It is calculated that when the mile of pennies is received, the sum of \$844.48 will have been added to the building fund.

Pennies are likely to become a mighty scarce article in Sayre within a few months, unless the treasurer of the fund sends them back into circulation again immediately after their receipt by him, for it would be a rather serious problem to collect 84,448 pennies in a community of about ten thousand population unless they were used over and over again.

Root Expansion Power

THE accompanying photograph furnishes a striking illustration of the power of growing roots to rent asunder any resisting substance, even to that of stone. In the side yard of a fine suburban residence in Pomeroy, Ohio, owned by Austin Workman Vorhes, an attorney and large coal operator, may be found the object depicted. Some time in the dim ages of the past a rock about twenty feet square fell from the cliffs in the rear and stopped with the grain running in the opposite direction to that in its original position. Later a tree seed took root in a small amount of soil on top of the rock. In the course of time the roots penetrated to the rock and then began wedging at the little



TREE GROWING ON A HUGE ROCK

crevices in their hunt for water and sustenance. The result was that the rock was rent from top to bottom, and the roots of the tree have gone on down into the earth.

In deeds transferring this property there is a clause, handed down from one to another, requesting that the rock and tree be not molested.

CHAS. A. HARTLEY.

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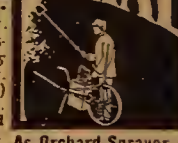
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HONOR ROLL

OF

Farm and Fireside's Great Four-Pony Contest

It's Growing Every Day!

Those whose names appear are entitled to especial honor because they have each won a place upon the FARM AND FIRESIDE Honor Roll in the Great Four-Pony Contest. Of all the contestants, these have so far done the best work. As the result of getting on the Honor Roll, each one of the contestants below has won two valuable prizes already.

Josie Anderson, Ohio
Glynn Anderson, Oklahoma
Ruth Anthony, Virginia
McKim Buckley, Pennsylvania
Leonard M. Beachley, Maryland
Ellis W. Burrows, Ohio
Robt. Bremer, Pennsylvania
Harrison Burkett, Pennsylvania
Florence M. Boyer, Pennsylvania
E. W. Burruss, Arkansas
Helen M. Beal, Ohio
Leonard Coutts, Canada
Paul Clay, Oklahoma
Thomas Crickman, Illinois
Marie Carothers, Ohio
Lottie L. Crawford, Nebraska
Abbie Chambers, Ohio
Mildred Comins, Massachusetts
Margaret Carter, Massachusetts
Henry Clausen, Indiana
Archie R. Cook, New York
Easie Dillard, Kentucky
H. T. Duncan, Pennsylvania
Geo. Ericsson, Iowa
Lorena Ernst, Nebraska
Gladys Ferlen, Wisconsin
Leonard Foreman, Pennsylvania
John S. Gibbs, Ohio
Arthur B. Gill, Virginia
Bernice Gilliland, Ohio
Grace Gindice, Montana
Mabel M. Hannum, Ohio
E. E. Harrison, Kentucky
Willard Hipsher, Ohio
Chas. Holden, Ohio
Jesse Hecke, Illinois
Margaret Heavner, West Virginia
Hubert Hull, West Virginia
E. Page Harris, Alabama
Genevieve Haun, Washington
Clifford Irving, Canada
Bernice Johnson, Ohio
Irene Johnson, Ohio
Johnny L. Johnson, Missouri

Lonette Jones, Louisiana
Mrs. Rosa Kannel, Ohio
Russel Kreiter, Ohio
W. A. Ludwig, Pennsylvania
Harry A. Leeman, Indiana
Frank W. Lynn, Ohio
Julia M. Lyons, Massachusetts
Muriel J. Leonard, Wisconsin
Margaret Lawson, Kentucky
Eddie Michaels, Ohio
Randolph Metzler, Pennsylvania
E. A. McKnight, Indiana
Jay A. Melious, New York
Willard L. Neese, Ohio
Jesse W. Oren, Virginia
Archie Parmely, Iowa
Wm. T. Pearson, Virginia
Helen Pressly, Virginia
Eugene G. Ryan, Kentucky
Myrtle Rogers, Texas
Harold Roes, Maine
Hazel Ridlen, Missouri
Minnie M. Reehling, Ohio
Hazel Rea, Ohio
Oliver L. Smith, Ohio
Henry Schladenski, Wisconsin
Freddie Scherbacher, Nebraska
Helen Siegfried, Ohio
Ralph Smith, Texas
Harold R. Savage, Rhode Island
Laura B. Snyder, Pennsylvania
Rudolph Thesen, Illinois
Roy W. Utz, Missouri
Helen Van Lehu, Ohio
Julia Violet, Ohio
Edna Walker, Ohio
Loree Winslow, Virginia
Pearl Wickwire, Iowa
Phebe Woodson, Virginia
Neath Wilson, Ohio
Wm. Arthur Woods, Nebraska
Lucile Welch, Kansas
Mabel Young, California
Ralph Boswell Walters, Indiana

This is the complete list of contestants on the Honor Roll March 12th. Those who have gotten on the Honor Roll since March 12th will have their names published in the April 10th issue.

IS YOUR NAME ON THIS LIST? READ THIS LETTER

If Not—Why Not?

A little work in the evening or after school will soon put it there, and if you can work during the day—all the better. Remember, as soon as you get on the FARM AND FIRESIDE Honor Roll you get two prizes, one of which you can choose yourself.

Don't forget that nearly every one takes some newspaper or magazine and they pay more than one dollar a year for it in most cases. Just think, you can offer FARM AND FIRESIDE seven whole years—168 great big helpful numbers—for only one dollar! And this seven-yearly subscription will count four points—just four times as much as a yearly subscription.

GET A "POINT" EVERY DAY

and you will soon be on the Honor Roll and right in line for the Pony Team. It's a lot easier than you think.

from Marinus Riter, Jr., of Paterson, New Jersey: "Last year I entered my son, a boy of only five years, in the Pony Contest and although we were very disappointed not to win the Pony, yet FARM AND FIRESIDE did more than they agreed to by my son, who won second place. Instead of sending him a \$50.00 talking machine, they sent him a \$75.00 instrument, and instead of six records as promised, they sent ten. To all contestants I can say that it takes a little hustling. Do not get discouraged and don't stop till the last minute. I know that FARM AND FIRESIDE will do all they can for you, but contesting is just like taking music lessons. The teacher can tell you how to learn, but it is practise that makes the player. So in contesting, if you hustle, success will crown your efforts!"

You see how the second-prize winner last year got his subscriptions and how pleased he was with his prize. If you take Mr. Riter's advice and hustle as he did, you can win "Surprise" and "Beauty," or the Piano, or Automobile! And you will be even more pleased with your prizes, for they are much bigger and better than last year's prizes. Don't wait. Hustle and Success is Yours!

"GET IN THE SADDLE!"



Sunday Reading

Took Him at His Word

A STORY is told of a distinguished classical scholar in India, says the "Illustrated Missionary News." He had a thorough knowledge of four of the principal languages of Europe. Besides this, he was a fine musician. In his early manhood he was a skeptic and a pessimist. At last, however, there came to him a great experience which made him feel the need, and ultimately see the truth of immortality. One night he wrote these words: "If there is one above all who notices the desires of men, I wish He would take note of this fact, that if I please Him to make known His will concerning me, I should think it my highest privilege to do that will wherever it might be and whatever it might involve." It was a cry out of darkness, and not long after Jesus Christ became to him the peace and enthusiasm of his being.

Soon there grew up in him a new sense of obligation to humanity. He was led to leave wealth for poverty, to give up a luxurious home for a mud-walled hut, to break away from the cultured and friendly, and go and see to the needs of the ignorant and uncivilized. He went to India, and for forty years he dwelt among the people of that land. Persecution, epidemic and almost intolerable heat could not drive him away from Bombay's crowded streets. During all these years the thin, frail man spent himself in unwearied self-denial, among a people who were so often irresponsible and violently hostile. He was consumed with a passion for bettering the people among whom he lived, and the time came when he laid down his life on their behalf. That is the enthusiasm which has been, and still is, displayed by many toward the dark and benighted heathen.

Putting the Bits Together

SHE was a dear, quaint old lady, whose days were full of kindness and whose hands were seldom idle. She was showing some treasures of handiwork, and among other things brought out a soft, silken quilt daintily stitched and finished. We exclaimed at its beauty, and then began slowly to recognize its component parts.

"Why, auntie, you did not make this whole pretty slumber robe out of just those odds and ends of silk you were gathering?"

She nodded and laughed.

"There are bits enough in the world, child, to make almost anything we want if only we are willing to save the bits and take pains to put them together," she said. "The reason for most of our doings without is that we want our material all in one piece—yards and yards of it—so that we can lay on what pattern we like, and cut it out easily. But it doesn't come that way usually. Strength, leisure, money, education—we seldom get any of them in the lengths we want, but putting the bits together will work wonders if only we learn how to do it. 'Slumber robe?' Is that the new name for this kind of quilt? Well, the 'happiness robe' is made in the same way, out of the bright little odds and ends which come to us daily."—Forward.

Worship by Machinery

PHONOGRAPH manufacturers now propose to supply a regular church service for the lazy "stay-at-home." This will only have a tendency to encourage these people to lie in bed mornings. The plan proposed does not even make it necessary to get up and dress. All a person will have to do, comments the "Western Christian Advocate," is to wind up the phonograph and have an organ voluntary by Handel; a hymn, such as "Come, Thou Almighty King," or the "Glory Song;" a psalm, like the 23d; an anthem, "We All, Like Sheep," and a four-minute sermon, to be followed by "Nearer, My God, to Thee," or "Lead, Kindly Light." We trust that the idea will not be a very popular one, else clergymen will soon find, like Othello, their occupation gone, dictation with stentorian voices of four-minute sermons into bubbling, grating, rasping, scratching, squeaking, squalling "talking machines" being the only function left to them!

Missions in China

THINK of it! China with a population of three hundred and eighty-two million has but one ordained missionary to every five hundred thousand population. Eighteen provinces in China, seventeen hundred great walled cities, some seven thousand towns, and more than one hundred thousand villages are still open to the preaching of the Gospel. This is in-

deed a field for work. The "Reformed Church Messenger" reminds us that every third person who lives and breathes upon this earth, who toils under the sun, sleeps under God's stars, or sighs and suffers beneath the heaven, is a Chinese.

The work of missions in China was commenced one hundred years ago. At first the work proceeded very slowly, but in more recent years great progress has been made. There are now six thousand foreign workers, and over thirty thousand native helpers occupying five hundred separate fields, containing twenty thousand mission stations. There are one million communicants, two million adherents and five hundred thousand Sunday-school scholars. Yet a million a month are dying in China without God.

Well Said by Doctor Torrey

"The Bible and the bottle don't mix." "I would rather go to heaven alone, than to hell in company or in a crowd."

"The nearer I live to God, the closer the Bible comes to me. When I get nearest to God, the Bible is closest to me, because the Bible was written from God's standpoint."

"The Bible is the most precise book in the world. Its truths can be demonstrated with mathematical exactness. That is why great mathematicians are as a rule firm believers in the Bible."

"Whenever the Church drifts away from the Bible and accepts the conclusions of the higher critics, she becomes worldly, and loses her spiritual power. It is the churches that believe the Bible that live near to God."

"Don't keep your preachers in a glass case, where no rough handling will rub off the bloom of their virtue. The preacher must be a man of the people, live among folk, rub up against all sorts of men."

"There are some who say they would accept Christ if their friends would. Husbands wait for wives, wives for husbands, children for parents, friends for companions. But if your friends and companions won't go with you to heaven, is that any reason you should let them drag you along to hell?"

"The divine origin and authorship of the whole Bible is attested by the testimony of Jesus himself. His divinity is attested by the divine life that he lived, by the divine words that he spoke, by the divine acts which he did, by the divine influence which he has exerted upon all subsequent history, and by his resurrection from the dead, which is God's seal upon his person and work. Reject the Bible, and you reject Jesus Christ. It is either the whole Bible and the divine Christ, or no Christ and no Bible at all. The Bible and its Christ stand or fall together."

Easter Gifts and the Giving

BEGINNING with flowers and cards—the former expressive of joy in the return of spring, the latter containing the season's greetings—the custom of giving at Easter time has become a universal one. And it is certainly pleasant and commendable so long as it be kept within the realm of appropriateness. Good taste demands that in Easter gifts we follow a certain law of propriety not necessary in Christmas presents. At Christmas we may give whatever is suitable to the individual; at Easter the gift must in some delicate manner suggest the season and its meaning.

For a time eggs threatened to become the one essential of an Easter card. The passing of this fad is to be rejoiced at, for there is little in the picture of an egg or a newly hatched chicken to suggest the beautiful event which the Christian Easter celebrates. Again, at one time a cross planted in flowers was the favorite symbol. But it is the resurrection rather than the crucifixion which we commemorate.

Joy is the very essence of Easter—glorious, bounding joy. This is not a time for replenishing a friend's wardrobe, for preparing bountiful dinners and indulging in frolics. Rather every gift should in some subtle manner suggest the deeper sources of joy, the awakening of spiritual forces, the hope of an everlasting life which death cannot touch. Finally, Easter gifts should not as a rule be costly, but should be made to reach as many as possible. In the olden days men went about the streets on Easter morning hailing everybody they met with the glorious words, "Christ is risen," to which came the invariable response, "Christ is risen indeed." So we should try to remind as many people as possible of the joyous news of a risen Lord.



THE

NATION'S GARDEN SPOT

The vast territories now open for settlement in the States of

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WASHINGTON
AND
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offer to the Homeseeker an unparalleled opportunity. This great region is rapidly developing, and as it becomes more thickly settled land values will correspondingly increase.

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EXACT SIZE GUARANTEED
HERE'S A CHANCE—SNAP IT UP

BOYS

Movement Regular sixteen size, and only three eighths of an inch in thickness. Lantern pinions (smallest ever made). American lever escapement, polished spring. Weight, complete with case, only three ounces. Quick train—two hundred and forty beats a minute. Short wind; runs thirty to thirty-six hours with one winding. Tested, timed and regulated. This watch is guaranteed by the maker for a period of one year.

The Guarantee In every watch will be found a printed guarantee, by which the manufacturers agree that if without misuse the watch fails to keep good time within one year they will repair it free of charge, and return it.
DESCRIPTION—Plain center band, elegant nickel case, snap back, Roman dial, stem wind, stem set, medium size, oxidized movement plate, open face. Engraved front and back.

How to Get the Watch

Send us your name and address on a postal card to-day, and ask for a book of eight coupons, and say you want the watch.

We will send by return mail a book containing eight coupons, each one of which is good for a year's subscription to Farm and Fireside, one of the best farm and home papers published in America. Comes twice a month. We will also send a sample copy of the paper so you can judge of its merits for yourself. You sell these coupons to your friends and neighbors at 25 cents each. When the coupons are sold, you send the \$2.00 to us, and we will send you the watch.

It is easy to sell the coupons. Thousands have earned watches by our plan, and you can do it in one day's time. Write to-day. Be sure to ask for a book of eight coupons.

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SPRINGFIELD, OHIO

When writing to advertisers, tell them you saw it in "Farm & Fireside"

Mother's Doughnuts

If you think there's no use trying
To do anything of worth;
If you're nothing but a cipher
In the multitudes of earth;
Just remember mother's doughnuts,
And press onward to the goal—
Finest doughnuts in creation,
They were made around a hole.

If the patch is on your garment,
Where it never was before;
If your pocketbook is empty
Of its hoarded little store;
Just remember mother's doughnuts
When the clouds of trouble roll—
Sweetest doughnuts manufactured,
All were built around a hole.

If you think your next-door neighbor—
Had a better start than you;
If, perhaps, you made a failure,
And success is hard to woo;
Set your teeth the way you used to,
Lay the comfort to your soul—
Recollect the grand perfection
That was circled round a hole.
—Rural Magazine.



CITY COUSIN—"You didn't take me through that building yet."
COUNTRY LAD—"That! Why, that's a rick of hay."

CITY COUSIN—"I may be a little green about farm life, but you can't fool me that way. Hay don't grow in big bundles like that. I've read about it in books before."

Memory

Somebody of a psychological turn of mind once asked Lord Rosebery, "What is memory?"

"Memory," Rosebery replied promptly, but somewhat pensively, "memory is the feeling that steals over us when we listen to our friends' original stories."—Youth's Companion.

The Kicker Near

"Hang it!" growled young Lovett to the girl of his heart, "it makes me mad every time I think of that ten dollars I lost to-day. I certainly feel as if I'd like to have somebody kick me."

"By the way, Jack," said the dear girl dreamily, "don't you think you'd better speak to father this evening?"—Philadelphia Press.

An Alarm Clock for a Penny

"I've got the best alarm clock in the business, and Uncle Sam provides it for me," said a West Philadelphia business man of irregular hours. "Two or three days of each week I have to rise early. Our postman always rings our doorbell good and hard when he leaves any mail. He comes along regularly as clockwork at 8 A. M., but does not always leave mail for me, and, consequently, the doorbell does not always ring. When I want to get up I just buy a postcard in the afternoon and mail it to myself. It has never failed to arrive in the early mail, accompanied, of course, by the ringing of the bell by the postman. Talk about a cheap system! I can make the most important kind of an appointment for the morning and fill it by the extra expenditure of a single penny."

Matrimonial Lottery

GYER—"I know a man who paid \$2 for a lottery ticket last month that won \$500,000."

MYER—"You don't say!"

GYER—"Fact. The ticket was a marriage license and he drew an heiress."—Chicago News.

Real Origin of the Tuxedo

"They are beginning to wear Tuxedo coats in Texas," says a New York paper. "Beginning is good! Don't you know, man, that the Tuxedo coat was invented in Texas when a cowboy had the tails shot off his clawhammer coat?"—Denver Republican.

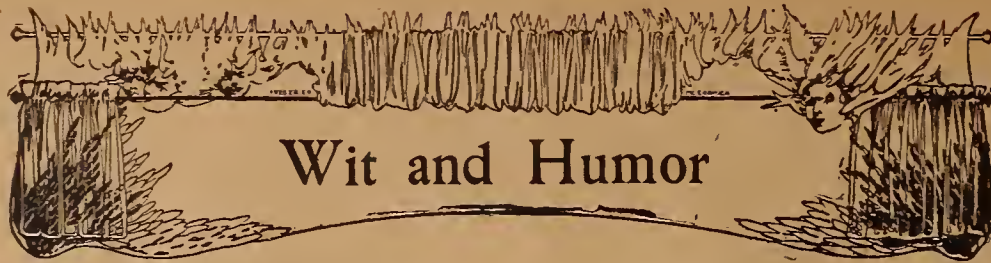
Saved

"How come de ol' deacon sings 'Heaven is My Home' eber' time he sec de collection hat gwine 'roun'?"

"Dat's ter put 'um on notice dat he out ob de jurisdiction ob dat hat!"—Atlanta Constitution.

Think This Over

Of troubles connubial, jars and divorce,
This, we believe, is the fruitfulness source,
A man falls in love with a dimple or curl,
Then foolishly marries the entire girl.
—Boston Transcript.



Wit and Humor

Too Much for the Class

She was only a substitute teacher, still she should have known better.

"Suppose," said she in the mental arithmetic lesson, "suppose Mary has five oranges and Gladys gave her eleven more. Then, if Mary gave Winifred six, how many would she have left?"

There was a long pause.

"Well?" she prompted, impatiently. "It's easy enough."

"Please, teacher," spoke up the smallest girl, "we always do our sums in apples."—New York Tribune.

A Strong Line

JUDGE—"With what instrument or article did your wife inflict those wounds on your face and head?"

MICKY—"Wid a motty, yer honor."

JUDGE—"A what?"

MICKY—"A motty—wan av thim frames wid 'God Bliss Our Home' in it."—Judge.

Hoh! Hoh! Hoh!

PROFESSOR (in physics recitation)—"I want to ask one more question before we leave the subject of heat. Can any one tell me which travels faster, heat or cold?"

WISE MEMBER OF 1910 (promptly)—"Yes, sir; heat, of course. Anybody can catch cold."—Cornell Widow.

Changed

"I am inclined to think," he said, "that you thought you did a good day's fishing when you caught me?"

And he was very much shocked and mortified when she answered:

"Well, I used to think so, but now I know I must have been bear hunting."—Busy Bee.

Making it Popular

"Rev. Dr. Skeem's church seems to be getting very fashionable."

"Yes; he charges five dollars a seat. All the would-be fashionables rush there every Sunday just to show they have the price."—Catholic Standard.

On Common Ground

"You don't look as if you were enjoying yourself, Mr. Shrinker. I wish all my guests to be at home."

"I'm sure they all wish they were, Mrs. Hostess."—Sacred Heart Review.

How He Knew

In a Kansas City court recently a negro on the witness stand was being questioned about a sick horse.

"What was the matter with the horse?" asked the lawyer.

"He wah ailin'," replied the witness.

"Yes, I know," said the questioner, "but what was the matter?"

"He wah jes' ailin'."

"But what was wrong? With what disease was he suffering?"

"Jes' ailin'," persisted the negro.

The lawyer was quiet a moment. Then he had a bright idea. He would try to get at the horse's symptoms.

"Well, how do you know he was ailing?" he asked.

"Cause he died," replied the witness—Kansas City Times.

Past

"Did I hear you say, old chap, that marriage has made a new man of you?"

"That's right."

"Then that wipes out that ten I owe you. Now lend me five, will you?"—Milwaukee Sentinel.

Many Connecting Links

TEACHER—"Is there any connecting link between the animal and the vegetable kingdom?"

BRIGHT PUPIL—"Yes, mum; there's hash."—Philadelphia Inquirer.

An Easy Mark

PATER—"Well, my boy, so you have interviewed your girl's father, eh! Did you make the old codger toe the mark?"

SON—"Yes, dad, I was the mark."—Boston Transcript.

He Got His

"Deduction is the thing," declared the law student. "For instance, yonder is a pile of ashes in our yard. That is evidence that we have had fires this winter."

"And, by the way, John," broke in his father, "you might go out and sift that evidence."—Houston Chronicle.

Obliging

PRISONER—"I'll reform, Judge, if you'll give me time."

JUDGE—"All right, I'll give you thirty days."—Cleveland Plain Dealer.

Was He Married?

THE WIDOW—"I want a man to do odd jobs about the house, run on errands; one that never answers back and is always ready to do my bidding."

APPLICANT—"You're looking for a husband, ma'am."—Brooklyn Eagle.

"What have you got in the shape of cucumbers this morning?" asked the customer of the new grocery clerk.

"Nothing but bananas, ma'am."—Everybody's.

Lincoln and the Cup of Tea

"There is a story told of President Lincoln," writes A. Maurice Low in the February "Appleton's," "that during a critical time in the Civil War, when the Senate had been particularly obstructive, one of his ardent sympathizers burst in upon him and hotly denounced the Senate, and finished his tirade by asking, 'What's the use of the Senate, anyway?'"

"Mr. Lincoln was drinking a cup of tea. In his homely fashion he poured the tea from the cup to the saucer and back again to cool it off, undisturbed by the caller's vehemence.



TEN YEARS HENCE

"How did Farmer White come to get run over by the auto?"

"He was so busy dodging balloon ballast that he didn't see the blamed auto till it struck him."

"Well," said the man impatiently, "what's the use of the Senate?"

"I have just shown you," was Lincoln's answer, and once more the tea was poured.

"The man looked puzzled. Then a great light broke upon him. 'You mean it enables public passion to cool off?'"

"The greatest of American Presidents nodded and drank his tea."

"That, then, is the function of the House of Lords."

Reasoning

The more a man loves, the more he is bound to suffer.

What we do not understand, we have no right to judge.

Constant exertion is what characterizes our modern morality.

The conscientious critic should first begin by criticism of himself.

Intellect is essentially aristocratic; charity is essentially democratic.

Thought without action is an evil, and so is action without thought.

He who is willing to act only upon strictly scientific principles is unfitted for practical life.

A beautiful work is beautiful through a kind of truth that is truer than any enumeration of unquestioned facts.

The country, during the rain, resembles a face with tears upon it—not perhaps so beautiful, but even more expressive.

Women are at once the sex which is the most faithful and still the most fickle—most faithful morally, and most fickle socially.

In every loving woman there exists a priestess of the past, a loyal keeper of some affection for which the motive has disappeared.

Love must always remain alluring and fascinating if the sway of woman is to last. As soon as the mystery is gone the attraction disappears.

Women wish to be loved without any reason why—not because they are pretty or good or wellbred or graceful or clever, but just because they are themselves.

Want of beauty in a woman, because it is unnatural, is as hateful as a gash, a discord, a spot of ink—in fact, as anything that is contrary to order. On the other hand, beauty refreshes and strengthens one like some miraculous food.

As soon as a man or a people or a literature or a period becomes feminine in type, it declines in prestige and in power. As soon as a woman leaves that state of subordination in which her natural merits have full play we see a speedy increase in her natural faults. Complete equality with man makes her contentious. A position of supremacy makes her tyrannical. For a long time the best solution will be found in honoring her and at the same time in controlling her.—Scrap Book.



A FUNNY TALE

FARMERS' NORMAL INSTITUTE

A SECOND annual Farmers' Normal Institute was held at Agricultural College, Michigan, in November. This is a somewhat new departure in farmers' education, since as yet but three states hold meetings of this kind.

As its name implies, the "Normal" is to teach institute teachers. The implication is significant and suggestive. It recognizes the farmers' institute worker as an instructor. It imposes obligations as well—that of thorough, up-to-date preparation and the cultivation of his ability to give to others what he knows.

The demand for practicality in farmers' institutes has been so urgent that men and women have been taken out of the harness of executive farming and home making and drafted in without special preparation as instructors. They had the requisite experience and capacity, but needed the assistance of trained minds to sort over their knowledge and arrange it so as to best help those who came to learn of them, and also so as to fit, without waste, into the limited time allotted on the programs. Thus the problem before the institute worker is even more difficult than that of a district-school teacher, with twenty to twenty-five classes a day; for he can expect to meet his pupils only one or two days a year. He must, perforce, have the power of decision reduced to a fine art and know to a hair's breadth what is wisest to say.

The Normal comes, therefore, to the zealous institute worker as a short college course. It puts the stamp of a new meaning on his work, like raising his common third-grade certificate to one of second or first grade. It furbishes up his old material, culls it over, rejecting obsolete and false theories and emphasizing true and vital facts. It adds to his information. It trains him in latest agricultural standards. It puts him in touch with the progress of experiments and with ideas being advanced for future tests. It shows him the rapid enlargement of the field of agricultural science, and, too, its limitations and mistakes of its past. It allies him with other state forces at work to improve rural environments, such as the schools, good-roads movement, dairy and food interests, and last, but not least, the agricultural college itself.

The fact that all but three of the institute workers attended the Normal indicates the appreciation with which they grasp an opportunity for more thorough preparation. It also certifies that a state may safely demand better-equipped speakers from year to year.

Two special women workers' sessions were held, resulting most happily. Besides the technical information gained, these meetings afforded the only conference of the year in which the women may consult freely as to best methods and topics to use in the local women's sections, which are so prominent a part of the Michigan institute plan.

Indeed, the opportunity for conference with one another and with the state superintendent is one of the strongest vital claims for the continuance of the Normal.

JENNIE BUELL,
Past Secretary Michigan State Grange.

NEW YORK'S MORTGAGE RECORDING LAW

The "Evening Post" for December 31st summarizes benefits obtained by the Tax Mortgage Record Law. Previous to 1905 mortgages were on the taxable list of subjects, with liability to annual tax, and interest was charged on them sufficient to cover the taxes, which were seldom paid, the increased interest accruing to the mortgagee. The Mortgage Recording Law provided that after July 1, 1906, all mortgages should pay a final recording tax of one half of one per cent and be relieved from taxation thereafter. Mr. Lawson Purdy, the great tax expert, and B. Aymar Sands both maintain, in the "Evening Post," that the law has resulted in lowering interest rates one half of one per cent in the six months experiment with the new law. This, notwithstanding the stringency in the money market and the usury law which limits interest to six per cent. It is predicted that interest rates will materially decrease as soon as the present abnormal conditions pass. Wide speculation, the withdrawal of money from savings banks to build homes, the high prices prevailing for certain commodities, the high rates of interest, together with the low price of bonds, all tend to decrease the amount to be loaned on mortgage securities and to inflate interest rates. Trustees of estates newly created are free lenders on mortgage securities, and have largely supplied the mortgage demand. Satisfaction is expressed over the result of the new law, which has reduced interest rates in an unprecedented era of profitable investment in other securities.

The Grange

BY MRS. MARY E. LEE

Both deplore the vetoing by Governor Higgins of that section of the bill providing for the payment of the recording tax on mortgages outstanding, together with a rebate on mortgages paid within a year. Mr. Sands says, "The law has proven generally satisfactory, both to borrowers and lenders, while as a tax measure it has been a good revenue producer, the state having received under the new law between July 1, 1906, and October 1, 1906 (with twenty-two counties not yet having reported), the sum of \$534,213, against a total amount of \$431,323 received under the annual tax law for the entire year July 1, 1905-July 1, 1906."

DEATH OF HONORABLE GEO. A. FULLER

For the second time this year death has entered the National Grange. Honorable Geo. A. Fuller, Master of the New York State Grange, died suddenly March 2d.

Mr. Fuller was elected Master of New York State Grange in 1906, after having served as Overseer of the State Grange for six years. He was a very successful business man and farmer, owning a large dairy farm. He was vice-president of the Watertown Produce Exchange, the largest inland board of trade in the world.

His county is one of the best organized in the world, and he has held honorable stations in subordinate and Pomona granges. For years he edited a Grange department in his county paper, and contributed widely to other papers.

He brought to the session of the National Grange the same determined effort to aid the farmers in a wide and cultured way that he gave to the state of New York. He was destined to play an important part in the National Grange, not only because of the commanding position of the Empire State, having the largest membership of all states in the Union, but because of his ability and integrity. One of his favorite sayings was: "Ideals are square deals."

LETTER FROM PAST NATIONAL MASTER JONES

At our next meeting at Washington we hope to get our good roads and parcels post bills squarely before the people, and in shape for the educational campaign to mold public sentiment in the summer field meeting.

Sound, sober judgment along correct and conservative lines is broadening the respect and influence of the order among the people, and especially in Congress and the departments at Washington and with the President. The honest sentiment of farmers is sought and has great weight in governmental affairs.

To our order great credit is due, and great benefit will come to the agricultural interests, and the entire interests of the country. It is now recognized everywhere that the farmers must be reckoned with in legislation and in all measures that give activity, stability and permanency to commercial affairs as well.

If hard times are to be averted the farmers must do it. They must raise the crops and stock not only to feed the world, but to give tone and volume to all business enterprises.

Yours fraternally,
AARON JONES,
Past Master National Grange.

NEW KIND OF RECIPROCITY

Why it was not seriously thought of long ago, I cannot tell; but just now the idea seems to be taking a strong hold on a good many people. Merchants of almost every class, who have been content heretofore to let well enough alone, are now advocating the new reciprocity. Indeed, many of them are insisting that anything less than the complete adoption of the new plan means a continuation of the rankest kind of robbery. The merchants seem to be about right in their newly adopted opinion. Farmers are agreeing with them; and it is said on what seems to be good authority that out in Oregon, where the people have a certain amount of direct legislative power, it is practically certain that the new idea is soon to be translated into law.

Last summer a friend of mine ordered a carload of brick from a Denver firm. The order was accepted to be filled at once, and the railroad company which had a monopoly of hauling the brick from the place of manufacture was asked to send a car to the proper side track. Some one blundered, and the car could not be

loaded until a week after it should have been delivered. Bricklayers, carpenters and teamsters had their plans broken up by the bad management of a clerk in the employ of a railroad company, whose responsible officers declared that they could not accept any responsibility for the delay and loss caused by the failure to put a car on the right switch at the time agreed upon.

Finally the car was furnished, the brick was loaded, and the car sent to Denver. Then a postal card was sent to the man who had ordered the brick, the card saying: "Car No. 13023 has been shipped; if not unloaded by the 17th, demurrage will be charged." The card was received on the 17th; and then it took the teamster a whole day to find the car, which had been side tracked at the wrong place. Those who had suffered loss had no defense; for there was no way to compel the railroad company to pay the damage resulting from the blunders of its agents.

The new reciprocity is called "reciprocal demurrage." It means that the railroad which does not furnish the car which has been ordered must pay for every day of delay, just as the man must pay who fails to unload his car within the time specified on the notice which the railroad sends him. And the idea is a good one. If my friend could be fined by the railroad for not using due diligence in unloading his car, the company which did not use due diligence in furnishing and moving that car ought to be subject to the same penalty for its failure to perform its share of the bargain. The railroad is a public servant. It undertakes to do certain things for hire, and it is bound by every consideration of fair business principles to perform the service agreed upon or to make good the losses caused by its neglect and failure. It does not scruple about charging demurrage. Let it accept the perfectly sound principle of reciprocity, and pay "reciprocal demurrage" when the shipper suffers by its carelessness or incompetence.

D. W. WORKING.

GRANGE WORK IN PENNSYLVANIA

I have been asked to tell something about our Pennsylvania Grange work for the wide circle of readers of FARM AND FIRESIDE. In judging other people by myself, I take it that they are most interested in what is going on right in these early days of 1907. So I shall speak of efforts for bettering the conditions of the Pennsylvania farmer through interesting him in the Grange.

People are at a loss to understand why the Grange should be so solicitous for their welfare. The past achievements of the Order, its present doings and future outlook strike them as applying to some remote neighborhood. People need to be inspired with confidence in themselves, in their ability to do things. This is especially true of farmers. They have been letting the other fellows do their thinking and talking for so long that they now show a woful lack of independence and spirit. This is most noticeable among the unorganized. Grange members having sensed the efficiency of united effort when intelligently directed look toward the future with courage and hope.

The great majority of patrons never become discouraged. They may fail in some worthy movement, but when the bell rings they line up for the next heat.

It often takes years to secure some desirable legislative reform. The wiles of the politician unite with the cunning and greed of the special privileged ones to defeat or delay measures that tend to equalize opportunity. Concentrated wealth commands the brightest legal talent, and then securely entrenched behind organization it snaps its finger at the puerile efforts of an unorganized, undeveloped opposition.

Here, now, is the chance for apostles and adherents of organization to show the value of discipline. It is the discipline in and of an organization that brings results. While in our Order numerical strength is desirable and important, yet it is efficient in proportion to its discipline. And this is one of the benefits we seek and get when in our subordinate and Pomona granges we are careful to properly observe the constitution, by-laws, forms and ceremonies of the Order.

When a farmer unites with his fellow-farmers in a Grange there is created a new and different relation between all concerned. The points of contact in their lives are different from any previously experienced with each other.

The new member feels like the soldiers in the awkward squad who don't know what to do, and do not know how to

execute a movement after they are told what to do. The awkward squad acquires its discipline by weeks and months of stern military drill.

In the Grange we acquire it by pleasant and agreeable methods. We attend Grange meetings because we enjoy them and find it profitable for us to do so. Involuntarily, unconsciously, we grow and develop. Through observation, study and practise, gradually the new member becomes a proficient worker and feels at home in his new relations with his fellow-members. He has learned to subordinate his views when they are at variance with the majority, and to enter fully and heartily into all movements which the Grange desires to enter upon. The harmony and fraternal spirit that prevail then are so gratifying and so inspiring. He realizes that in the Grange "discipline" hovers over the members not as an arbitrary ruler, but as a sweet benediction that satisfies and comforts while it strengthens and ennobles.

As a result of the discipline acquired in the atmosphere of the elevating purposes and inspiring principles of our Order the Grange gains a strong member and gives to the community and the state a stronger man and a better citizen.

So we go on and on in our efforts to win farmers to the Grange. While we may be selfish in wanting to build up our Order, yet we are urging farmers and their wives to join our granges in Pennsylvania because we know that membership therein will be a benefit to them, their communities and our state.

W. T. HILL,
Master Pennsylvania State Grange.

THE OBSERVATORY

"The way that I organized Michigan was by going after the state just as a politician goes after his state—by knowing every community, the leaders in it, and then going after them for the Grange," said G. B. Horton, of Michigan.

Grange growth in Maine under the aggressive leadership of Hon. Obadiah Gardner is prosperous. Maine has splendid halls and a large and working membership. One out of every twelve of the entire population is in the Grange. As Maine is strict in her construction of eligibility, this means that most of her farmers are members.

By the way, did you help to secure the four beneficent measures the Grange was active in securing and which went into effect January 1, 1907—railway rate law, denatured alcohol, pure food law, and increased powers for the Interstate Commerce Commission?

And did you help in getting the regulation changed by which denatured alcohol can be manufactured in small distilleries? And did you work effectively against the ship subsidy bill? What are you doing about parcels post, postal savings bank, and federal aid to good roads?

Pembroke Grange, of New Hampshire, in celebrating its twentieth anniversary made a proud record. Its average attendance during this time has been 64. It has paid into the State Grange treasury \$6,456.87. It has also contributed \$200 toward furnishing a main room in Pembroke Academy. At one time it took in a class of 67 men and 67 women. This Grange has a rich record of literary work done, of contributing to the social and intellectual welfare of the town. It has been public spirited with its hall, and in it have been set in motion many of the things which have contributed to the good of town and state.

Under the direction of Hon. T. C. Atkeson, Master of West Virginia State Grange, and Dean of College Agriculture University of West Virginia, a short course in agriculture has been opened especially for the farmers' institute lecturers. Experts from Washington have been secured. The students profess themselves highly gratified with the foresight of Professor Atkeson. J. R. Wells, on behalf of these workers, presented Dean Atkeson with a handsome gold-headed ebony cane. Dean Atkeson is loved in West Virginia and revered for agriculture. He said, "If there is one thing above another of which I am proud, it is that I have won out on a West Virginia farm."

Have you ever wondered how we can give you such a great big paper as FARM AND FIRESIDE twenty-four times for twenty-five cents? It is because the advertisers pay us a large amount every issue for the space they use to sell you their goods. Thus when you buy from them you are bestowing a double favor upon yourself: You are getting reliable merchandise at reasonable prices, and also making it possible for us to furnish you FARM AND FIRESIDE at such a cheap price.

LEAVES FROM A FARMER'S NOTE-BOOK

I used to know a man who every morning just about three o'clock roused his boys out to go after the cows. I worked for him two summers. When the clock struck three we would hear the farmer pound, pound, pound, on the side of the room below to rouse the poor tired little fellows sleeping above. They understood what it meant, and pretty soon out they would turn and set out through the half darkness for the pastures a mile away. But that man did not keep his boys with him very long after they were old enough to strike out for themselves. One of them went away West and took up a farm for himself. I have wondered if he remembered how it was when he was a little chap, and if he gave his own boys a chance to sleep in the morning, when they ought to be getting strength for the battle of life that would soon be upon them. The other boy left the farm, too, and became a teacher. Now, I doubt whether that man's way was the best to hold boys on the farm. You must have something on the farm to win and attract young folks if you hold them there. Getting out at three in the morning to trapes off in the dark after the cows is hardly one of them. But some farmers never seem to think it wise to give themselves or their boys and girls anything that looks like a good time. Hard work and plenty of it never hurts a man, but grind does. The end of the farmer I have been speaking about was not very encouraging to the rush method of doing farm work. He lost everything he had, and had to go to live with one of his children. At this time of the year, when there is a temptation to crowd things, it is a good plan to remember this simple story.

On a good many farms at this time of the year we are getting one or more new cows. The process of introducing a strange cow to the herd is an exceedingly interesting one. The first thing that must be settled is the question of seniority, or, in plain words, the problem of who is boss. I have seen cows just about tire themselves to death over this matter. Round and round the barn yard they would go, fighting tooth and nail till the earth was all dug up in every direction and tufts of hair strewn the ground. When the stranger had either beaten one contestant or been defeated herself, another would take up the battle, and at it they would go again. For several days the herd would be just about demoralized. It is just about what we so-called human folks do in business. The only difference is that the time does come with cattle when they get the question settled and drop the difficulty and go to work, while we of the higher (?) order of beings keep right at it and at it as long as there is a breath of life left in us. We think we must squelch the other fellow or he will surely squelch us. And the fight goes on till there is not as much left of us as there was of the traditional Killenny cats. It is all wrong. There is room enough for us all here on this old earth, if we would be satisfied with a fair share of the good things of the world. The trouble is, we all want a little more than enough. You ask any man how much would satisfy him, and he will tell you, "A little more than I have got!" No matter whether he has a dollar or a million. What do we do when the cows turn in to wrestle down a strange creature we have just put into the dairy? Why, we go out and drive off some of the old fighters that are bound to stay at the head of the heap. Maybe we shut them up in the barn and give the new cow a chance for her life. That is a good idea for us to apply to the larger problems of life. Somewhere there ought to be a good strong restraining hand laid on the tendency to kill out the weaker men. They have just as good a right to live as the rest of us. We are slow to learn this, but we are learning it and it is a good thing.

EDGAR L. VINCENT.

ALFALFA FOR PIGS

Alfalfa worked wonders for me in the past year.

I had two little pigs that every one had discarded when selecting from among the herd. They were runts, and looked so puny that I turned them out to die. When they found the alfalfa, when about nine weeks old, they weighed about ten pounds each.

I killed them February 2, 1907, when only six months and twenty days old, and one weighed one hundred and twenty-eight pounds and the other one hundred and forty pounds.

This is the most remarkable growth for hogs around here that has happened for a long time. I consider alfalfa one of the best feeds for hogs. P. H. WILLIAMS.



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After you have sent in your name and received the Phonograph, you may have two days to give it a thorough free trial. Have your friends hear it. See if they are not delighted. Then you may keep complete outfit, only sending us monthly payments of trifling amount. We can sell you a genuine Edison Gem Phonograph outfit complete, including Twelve Edison Gold-moulded Records for \$14.20. No one could sell it to you for less, even if you paid cash in advance, but we can arrange to let you pay as little as \$2.00 a month if you like. We will send you the Phonograph, exactly as we agree to do, and give you an absolutely free trial. You may return it at our expense if not entirely satisfactory; if not all and more than represented. **Remember This!** No C. O. D. No cash in advance. Write for Free Guide to Latest Music.

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O. L. Chase
St. Louis, Mo.

Before my plan was invented paint was sold in two ways—either ready-mixed or the ingredients were bought and mixed by the painter. Ready-mixed paint settles on the shelves, forming a sediment at the bottom of the can. The chemical action in ready-mixed paint, when standing in oil, eats the life out of the oil. The oil is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

My paint is *unlike* any other paint in the world. It is ready to use, but not ready-mixed.

My paint is made to order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can by my factory inspector.

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I Guarantee Freight Charges.

I ship my thick pigment, which is double strength, freshly ground, in separate cans, and in another can, I ship the pure, old process Linseed Oil—the kind you used to buy years ago. Any child can stir them together.

I sell my paint direct from my factory to user—you pay no dealer or middleman profits.

My \$100.00 Cash Guarantee

I guarantee, under \$100 Cash Forfeit, that the paint I am offering you does not contain water, benzine, whiting, or barytes—and that my Oil is pure, old-fashioned linseed oil and contains absolutely no foreign substance whatever.

I guarantee the freight on six gallons or over. My paint is so good that I make this wonderful fair test offer:

When you receive your shipment of paint, you can use two full gallons—that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in

every detail, you can return the remainder of your order and the two gallons will not cost you one penny.

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It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on six months' time, if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

Back of my paint stands my Eight-Year officially signed, iron-clad Guarantee.

For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo. I will send my paint hook—the most complete hook of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8-year guarantee.

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I want no money for this. I do want honest, intelligent people, young or old, to give me in return a little of their spare time. No experience or training required. Work is easy and pleasant and will make friends for you. Send me your name and address to-day, and I will tell you all about it.

Write Promptly and Get Sixty-inch Tape Measure Free.—To those who write me immediately I will send a souvenir, absolutely free, a sixty-inch metal-bound tape measure, plainly marked to one-eighth of an inch on white, one-half inch painter's muslin. This tape measure is something you are likely to need every hour of the day, and they do not grow on trees. I have to pay money for them, but I do not ask you to do anything, except to write me promptly, in order to get one. Address Department F, Chicago Premium Co., Box 604, Chicago, Ill.



If you will get two of your neighbors who don't take FARM AND FIRESIDE regularly to subscribe at twenty-five cents a year, and you send us the fifty cents, we will send FARM AND FIRESIDE to each a full year and give you a full year free. Three yearly subscriptions in all. That's a good fair offer. Let us hear from you.

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SPRINGFIELD, OHIO

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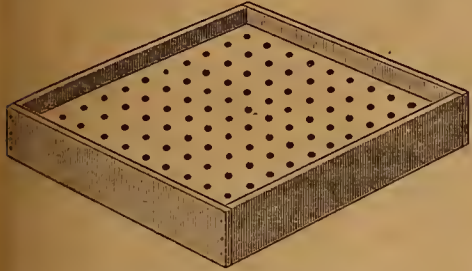
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SEED-CORN TESTER

I first tried a seed-corn tester, in which the grains are placed in numbered squares on cloth, and covered by a second cloth. The weak point in this tester is that the grains of corn get mixed so you cannot tell which ear they are from. To avoid this the squares have to be made so large that it requires too large a box to test many ears at once.

I will describe my germinating box (illustrated here), hoping it may be of help to some one. The inside measurements are twenty by twenty-four inches, and four inches deep. After the box is



SEED-CORN TESTER

made secure a board that will fit loosely on the inside. If none twenty inches wide can be secured, two ten-inch ones will do. With an inch auger, bore holes as indicated in the illustration, about one half inch deep.

Place about one and one half inches of moistened hardwood sawdust or sand below the board, and same amount on top. Before placing dust on top, cover corn with cloth.

The merit of this tester is that the kernels do not mix, and a large number of ears can be tested in a small box.

When testing I place the ears in an empty wagon box, and that fits the plat, so that numbering is unnecessary.

WALTER T. MADDEN.

PITHY PARAGRAPHS

Farming is a great and glorious business which cannot be understood all at once.

There is money in making mistakes if you will guard against making them a second time.

Judge a man's wisdom by the extent of his garden and population of his poultry yard.

If there are weak spots in your fences the stock will find them for you if you do not find them first.

A strong, high fence is the best argument to convince a hen that she has no business in the garden.

The young man will be glad to stay on the farm when convinced that there is something there to stay for.

It is always the narrow-minded man who wants to broaden out enough to remember other people's business.

Opportunity is more apt to knock on a man's door while he is in the field than when sitting around the hearth.

A certain amount of a certain kind of charity should begin at the barn, and also spend much of the time around in that part of the country.

Sing in the morning; sing at noon; sing at night. If you cannot carry a tune sing anyway. The best singer may be the man who knows the least about music.

W. J. B.

THE BOOK OF ALFALFA

History, Cultivation and Merits. Its Uses as a Forage and Fertilizer. By F. D. COBURN, Secretary Kansas Department of Agriculture.

One of the most important movements which has occurred in American agriculture is the general introduction of alfalfa as a hay and pasture crop. While formerly it was considered that alfalfa could be grown profitably only in the irrigation sections of the country, the acreage devoted to this crop is rapidly increasing everywhere. Recent experiments have shown that alfalfa has a much wider usefulness than has hitherto been supposed, and good crops are now grown in almost every state. No forage plant has ever been introduced and successfully cultivated in the United States possessed of the general excellence of alfalfa.

When once well established it continues to produce good crops for an almost indefinite number of years. The author thoroughly believes in alfalfa, he believes in it for the big farmer as a profit bringer in the form of hay, or condensed into beef, pork, mutton, or products of the cow; but he has a still more abiding faith in it as a mainstay of the small farmer, for feed for all his live stock and for maintaining the fertility of the soil.

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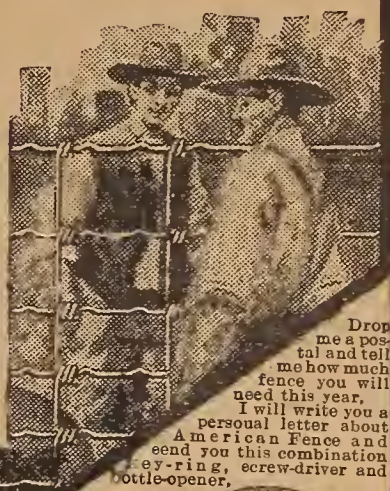
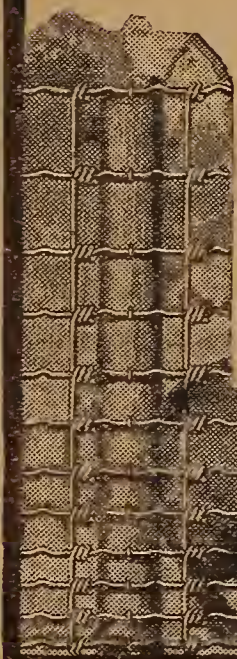
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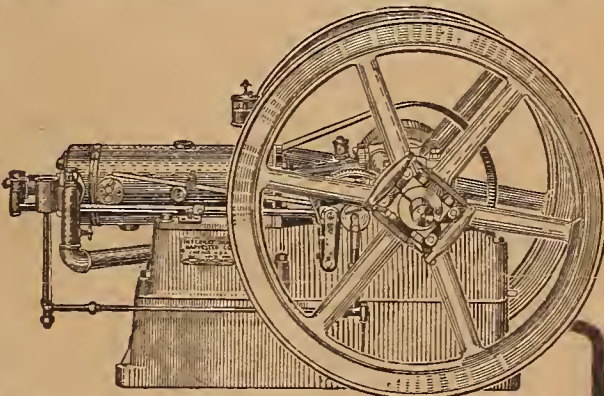
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Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.

No. 902—Gored Skirt Trimmed to Simulate Overskirt
Sizes 24, 26, 28 and 30 inch waist measures. 10 cents.



No. 797—Surplice Waist with Three-Quarter Sleeves
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.

No. 798—Double Skirt
Sizes 22, 24, 26 and 28 inch waist measures. 10 cents.



No. 852—Seven-Gored Skirt
Sizes 24, 26, 28 and 30 inch waist measures. 10 cents.



No. 772—Waistcoat Shirt Waist
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.



No. 825—Dressing Sacque with Sleeves in Two Styles
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.



No. 884—Empire Tea Gown with Panel Front
Sizes 32, 36 and 40 inch bust measures. 10 cents.



No. 854—Boy's Blouse Waist
Sizes 4, 6, 8, and 10 years. 10 cents.



No. 779—Guimpe Waist
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.
No. 780—Box-Plaited Skirt—Eight Gores
Sizes 24, 26, 28 and 30 inch waist measures. 10 cents.



No. 883—Plaited Empire Morning Jacket
Sizes 32, 36 and 40 inch bust measures. 10 cents.



No. 905—Box-Plaited Eton
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.

No. 906—Eleven-Gored Box-Plaited Skirt
Sizes 22, 24, 26 and 28 inch waist measures. 10 cents.



No. 900—Waist with Shield Bib
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.



No. 859—Child's Tucked Dress
Sizes 6 months, 1 and 2 years. 10 cents.



No. 826—Corset Cover with Peplum
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.



No. 892—Plaited Skirt (with or without trimming band)
Sizes 22, 24, 26 and 28 inch waist measures. 10 cents.

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When ordering be sure to comply with the following directions: For ladies' waists, give BUST measure in inches. For skirt patterns, give WAIST measure in inches. For misses or children, give age in years. To get BUST and BREAST measure, put tape measure ALL of the way around the body, over the dress, close under the arms. Order patterns by their numbers. Satisfaction guaranteed or money refunded.

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AGRICULTURAL NEWS-NOTES

Germany now has twenty thousand agricultural associations.

Broom corn is a crop that will adapt itself to dry conditions better than most others.

The bacon-producing breeds of hogs in England are the White Yorkshires, the Berkshires and Red Tamworths.

The average weight of hogs received at the Chicago stock yards on January 1st, during a period of nine years, averaged 218½ pounds.

The rapid growth of the onion-growing industry is shown by the fact that last season's crop amounted to 4,312,000 bushels.

The results obtained in 1906 by the United States Department of Agriculture in the improvement of sugar-beet seed shows the progress being made in scientific agriculture.

The West Virginia Experiment Station has found that nitrate of soda paid the best when applied to the rye crop in the spring. One hundred pounds to the acre is enough.

The value of farm and live-stock products in Kansas has more than doubled in the comparatively short period of ten years. Secretary Coburn of the State Board of Agriculture is authority on Kansas products.

In 1611 the James River (Virginia) settlement had thirty acres of corn under cultivation. Ten years later the Massachusetts colony had twenty acres. This was the beginning of the field cultivation of corn in this country.

The United States Department of Agriculture is co-operating with the Wyoming Experiment Station at Laramie in the breeding of sheep best adapted to the range. As wool is the money crop in that locality, Rambouillet rams have been purchased.

At the recent meeting of the American Forestry Association Hon. James Wilson, Secretary of Agriculture, was unanimously re-elected president. In the list of directors appears the name of the Master of the National Grange, Hon. N. J. Bachelder, of New Hampshire.

So much has been written favoring the use of bacon and other pork products that the demand has increased more rapidly than the supply. While there has been really no shortage in hogs, the demand for pork products has been vastly increased.

CATALOGUES RECEIVED

Aspinwall Mfg. Co., Jackson, Michigan. Pamphlet, "Potato Culture."

Jacob Reese, Darby, Pennsylvania. Pamphlet on "Basic Slag" fertilizer.

The Storrs & Harrison Co., Painesville, Ohio. Illustrated nursery catalogue.

J. A. Foreman & Son, Sylvia, Tennessee. Booklet, "Foreman's Winter King Peach."

M. G. Madson Seed Co., Manitowoc, Wisconsin. Illustrated seed and nursery catalogue.

Flint & Walling Mfg. Co., Kendallville, Indiana. Illustrated catalogue of water tanks and substructures.

Ellwanger & Barry, Rochester, New York. Mount Hope Nursery catalogue of novelties and specialties.

Anderson Mfg. Co., Cincinnati, Ohio. Illustrated vehicle and harness catalogue. Sold direct from factory to user.

The Williams Telephone & Supply Co., Cleveland, Ohio. Illustrated telephone catalogue, "A Short Trip to Town."

Sure Hatch Incubator Co., Fremont, Nebraska. Illustrated catalogue of incubators, brooders and poultry supplies.

Gordon, Van Tine & Co., Davenport, Iowa. Illustrated millwork catalogue—sash, doors, mouldings, etc.—"From Tree to You."

Peter Henderson & Co., New York City. "Everything for the Garden, Greenhouse, Farm, Lawn, etc." and "Farmers' Manual."

J. I. Case Threshing Machine Co., Racine, Wisconsin. Illustrated catalogue of traction engines, steam-plowing outfits and grain separators.

Stromberg-Carlson Telephone Mfg. Co., Rochester, New York. Illustrated pamphlets, "Telephone on the Farm," "How to Build a Rural Telephone Line," and "How the Telephone Helps the Farmer."

International Harvester Company of America, Chicago, Illinois. Illustrated catalogues of the Deering, McCormick, Champion, Plano, Osborne and Milwaukee harvesters. Illustrated catalogue of gas engines. Illustrated catalogues of cream separators.

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